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RESOURCES

FOR

RURAL DEVELOPMENT

Alberta Census Division 14

Published By The Rural Development Section
Agricultural Economics Division
Alberta Department of Agriculture

Victor T. Janssen
Supervisor

July 1966

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Appreciation is also extended to Miss Margaret Clews and Miss Dorothy Long for typing and reviewing the report.

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PREFACE

In Alberta economic and social development has always been a major goal of the people. Ever since the original settlers entered the territory great efforts were made to obtain a living from the natural resources which were in existence. Labour, capital and management were combined with raw resources of the land to provide constantly improved levels of living to the residents. As economic development took place over the years, social amenities such as churches, schools, and recreation facilities were developed. Throughout this process some areas of the province advanced more rapidly than others. In some instances the development was erratic with "booms and busts" as various resources were exploited, new demands expanded and improved technology developed. In accordance with the location of resources and related processing and marketing, some degree of specialized production was noticeable in these areas. This overall socio-economic development was largely self-generated by the local people and the role of government was to provide a framework which permitted maximum progress.

By the 1960's, wide variation in the levels of income and employment opportunities existed between areas within Alberta as well as throughout Canada. Resources were not being utilized at optimum levels, considerable waste was occurring in soil and water management and the resulting heterogeneous pattern of socio-economic development suggested the need for a more comprehensive program to be established. It was recognized that a more active role of the local people as well as all levels of government would be necessary to achieve the objectives in this sphere. This situation was highlighted by a national conference in 1961 on Resources For Tomorrow. Papers at this meeting, delivered by authorities in the field, emphasized the gap between potential and actual accomplishments.

Culmination of the attention on the subject resulted in the federal Agricultural Rehabilitation and Development Act of 1961. This legislation provided for joint Federal-Provincial operations and financing of programs in research, resource use and socio-economic development in rural areas. The philosophy of the act was to place government in a more active role to help the people of interested areas improve their level of living. Under the Rural Development section of the act, opportunity was given for government to help people inventory their resources, analyze their own situations and outline possible methods of improving income and employment opportunities.

Local people in Alberta Census Division 14 (the Hinton, Edson, Evansburg, Whitecourt area) requested this kind of assistance. As a result the area became the Alberta pilot project in comprehensive "Rural Development". Here the local people in committees and through their own existing organizations will review their circumstances and study areas of potential development. To assist in this work the Farm Economics Branch of the Alberta Department of Agriculture was requested to inventory the resources of the area, analyze the existing conditions and suggest potentials for socio-economic development. This report is the result of this work. It is expected that this report will be useful to the local people of Census Division 14, individually and in group study. No doubt they will use it as resource information as they review local conditions and decide upon the direction and priorities for program development in their area.

The report was prepared under the supervision of Vic Janssen with the assistance of Ken Svenson of our Rural Development Section. Special assistance was given by Randall Meeks, Kelly Folsom and other summer research assistants. Although considerable data were available from printed materials through various government agencies and private organizations some additional field work and surveys were essential to the completion of the full picture.

It is hoped that this work will provide useful background information for the pilot area and perhaps be a general guide to study procedures in other related regions. Nevertheless it is recognized that supplementary information frequently of a detailed nature will be added to this in areas of special concern by the local people and by technical specialists from government or private business.

GLEN R. PURNELL, Director
Agricultural Economics Division

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INTRODUCTION

Rural Development is a process which raises the level of living of a non-urban area through the co-ordinated use of labour, capital and natural resources. It refers to programs designed to stimulate and foster local action in order to achieve economic, social and cultural growth. Factors which may be used to measure this growth include: per capita income, employment, level of education, distribution of occupations within the labour force, and the types and value of goods and services produced. The present level of many of these factors are discussed in this report and some potentials for development are indicated.

The terms Rural Development and A.R.D.A. (Agricultural Rehabilitation and Development Act) are not synonymous. A.R.D.A. is one source of funds for certain Rural Development projects and there are many other sources which may contribute funds depending on the type of project undertaken. Rural Development refers to the development of the total community and is not restricted to any particular segment of the economy. In Census Division 14 Rural Development programs may operate in all towns and villages as well as the rural areas. Programs under the heading of Rural Development encompass a wide range of projects, designed primarily to improve the level of living of the residents of the area. Examples of projects that could be instigated under the Rural Development program include farm enlargement, improvement of specific recreational facilities, rehabilitation and training. Rural Development is not new. Since the settlement of the country, local people have continually attempted to improve their economic and social position. This particular Rural Development program is designed so that the senior levels of government can assist local people in continuing to improve their levels of living by providing financial and technical assistance. The program is based on the premise that local people can identify most of their problems and will take necessary action to solve these problems when the required resources are made available.

It is recognized that local government agencies will be required to assist in developing and carrying out the program. In C. D. 14 a local technical panel, comprised of officials of the local government departments has been organized to assist local groups. In addition, the Extension Branch, Alberta Department of Agriculture, has appointed a Regional Resource Co-ordinator and a Rural Development Home Economist to co-ordinate the program in the area.

This publication is designed to provide background information to assist the following individuals or groups:

1. Local people in understanding problems, seeking solutions, and establishing goals and priorities for development.
2. The Technical Panel in providing resource assistance to local development efforts.
3. The Regional Resource Co-ordinator and Rural Development Home Economist in counselling local people and aiding them in developing an integrated development plan.
4. Government departments as a guide in establishing policies and programs suited to the needs of the area.

The figures and tables in this volume are numbered according to the subject matter section to which they apply. For example: all the figures and tables which have reference to the Natural Resources section are prefixed with the letter "B". The figures will be numbered B-1, B-2, etc. The tables are numbered using two different number systems according to the location of the table in the book. The tables numbered with Roman numerals (e.g. B-IV) are found in the main text while the tables numbered with regular Arabic numbers (e.g. B-4) are found in the appendix.

In some cases, the data presented is different from that contained in the 68 page booklet published earlier, where differences occur the data in this report should be more accurate.

A. GEOGRAPHIC AND HISTORIC SETTING

GEOGRAPHIC

The province of Alberta, covering 255,285 square miles, is the largest of the Prairie Provinces. The southern part of the province consists of a treeless prairie belt while to the north lie mixed forests. On the west are the foothills and mountains of the Rocky Mountains while the Canadian Shield enters the province at its north-east corner. Population as of the 1961 Census of Canada was 1,331,944.

The initial rural development area selected in Alberta, except for a few adjustments, is contiguous with the boundaries of Census Division 14. The region occupies a west-central location in the province, bordering Jasper National Park on its western perimeter, portions of the Pembina River on the east and the Athabasca River on the north. The 19,282 people enumerated in the 1961 Census of Canada are scattered over 11,760 square miles, roughly the equivalent size of Great Bear Lake.

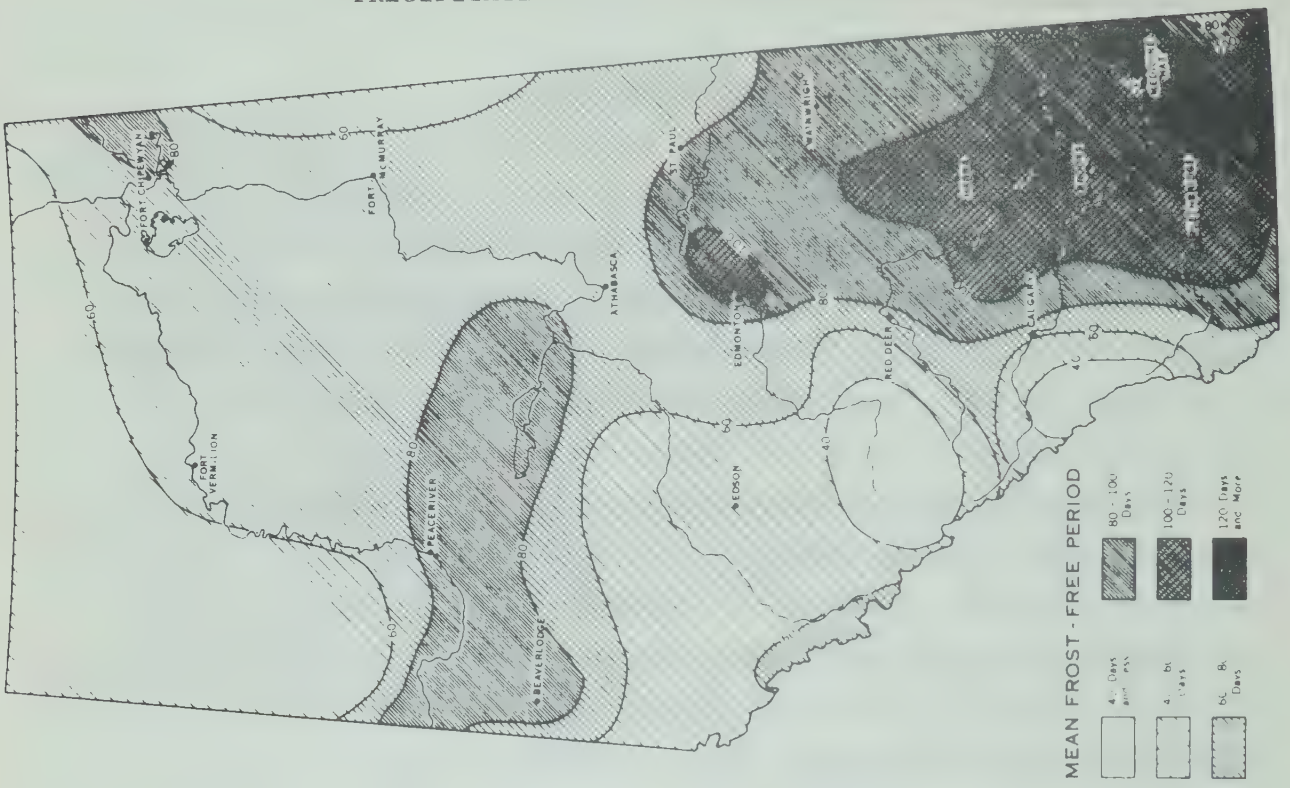
The topography of the area varies from high mountainous terrain on the west where elevations in excess of 8,500 feet are common, to a flat prairie-like region on the east where elevations of 2,500 to 3,000 feet prevail. Forests cover a major part of the land area and soils are predominately of the dark grey and dark grey wooded variety. It is estimated that only about one-quarter of the area could be classified as arable land with the remainder being suitable only for pasture or woodlands.

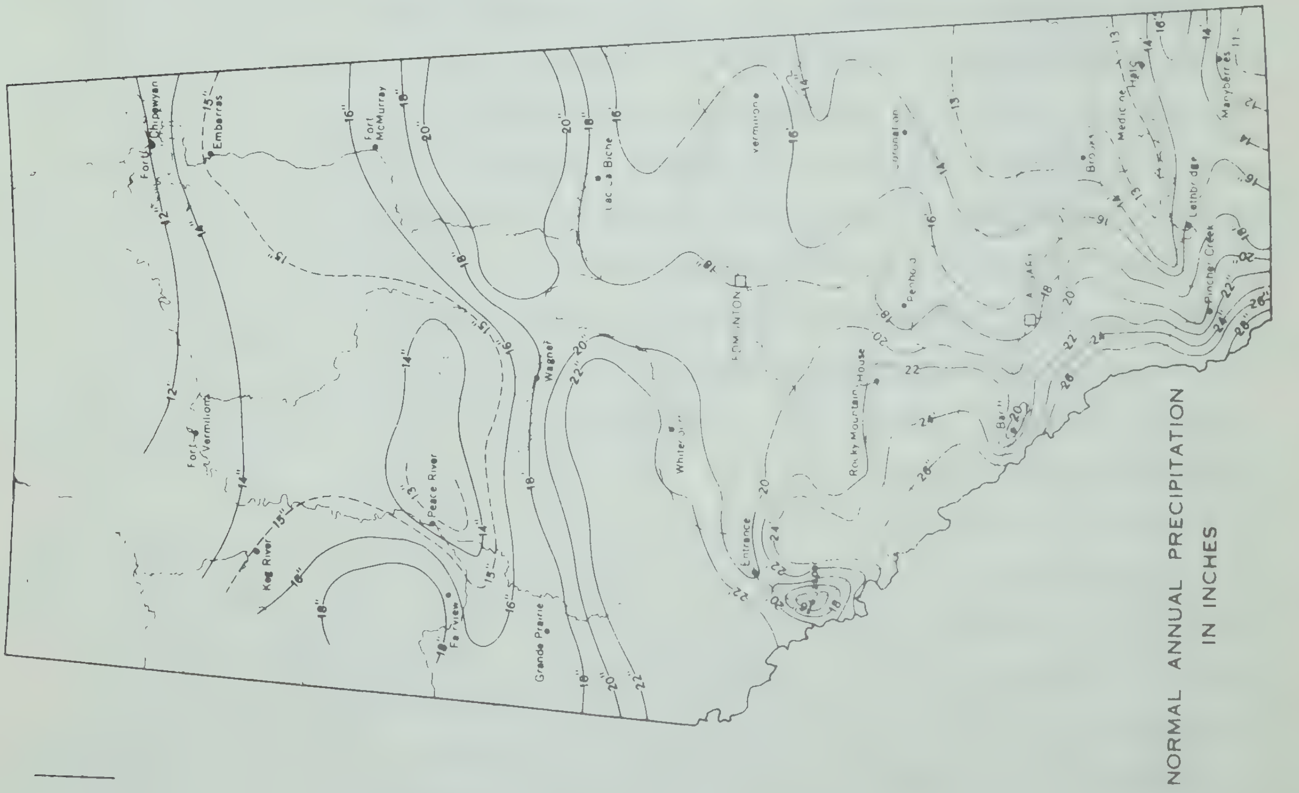
The area is drained by a network of rivers, namely the Smoky, McLeod, Pembina, Wildhay, Berland and Athabasca, all of which flow generally in a north-easterly direction into the Arctic Ocean. Numerous lakes are also to be found in the area, the largest of which is Chip Lake.

Climate in C. D. 14 is characterized by long severe winters and relatively short summers. Both seasons are typified by widely fluctuating conditions. Weather records indicate the advisability of the limitation of agricultural produce to cereal crops and cool season garden crops.

Initial development at the turn of the century was centered around the lumber industry. Large saw and planing mills were established throughout

PRECIPITATION AND FROST FREE PERIOD MAPS





NORMAL ANNUAL PRECIPITATION IN INCHES

Source Alberta Industry and Resources, 1964, published by Alberta Bureau of Statistics and Department of Industry and Development.

the area. Unfortunately timber was felled indiscriminately and as a result little remains of the excellent stands of timber that once grew in the region.

In the early part of the century much of the land near the eastern edge of the area was settled by homesteaders, many of whom worked part time in the lumber industry. Then as well as now, the part time farmer was important to the local economy.

Extensive mineral deposits, particularly, coal and gas and oil, have had a tremendous impact upon the area at one time or another. Coal mining activities developed in the early part of the century, particularly in the Cadomin and Luscar regions. Production continued at a high level, tapering off in the 50's. As late as 1949 the estimated value of coal production was over $10,000,000 but it decreased to $35,000 in 1960, increasing again to $82,000 in 1964. Likewise, the mining labour force also decreased rapidly, from 1,550 in 1949 to 17 in 1964, some of whom were even on a part time basis.

The discovery of oil in the 50's added materially to the wealth of the area. Operations employed a large number of the local people. Later, processing plants for extracting by-products from the oil and gas were built. The value of the output of the oil and gas business dwarfs all other segments of the economy.

Another major development was the location of a pulp mill at Hinton. This plant employs approximately 500 people in the mill and an equal number in the bush. In addition, this plant is responsible for the employment of approximately an equal number of labourers in industries which serve the mill or its employees in more indirect manner. The pulp mill has provided stability to the lumber industry in the area. In addition, another pulp mill is planned for Whitecourt which will permit steady economic growth in that area as well.

A railroad is being built from the main CNR tracks, at Solomon, to the Smoky River coal deposit area in west-central Alberta. Both coal and lumber resources will benefit from this route and provide for future development of that region.

In retrospect, all of the major changes in resource use have taken place in a fairly orderly fashion with the exception of the Coal Branch area when the closing of the mines resulted in a mass emigration of most of the miners and others engaged in providing services. It is unfortunate that a space of four years elapsed between the closing of the mine and the construction of the mill at Hinton for ideally the labour force released by one industry should be absorbed by another in the area. This was not the case. However, at the present time the whole area is relatively prosperous with no significant unemployment.

HISTORIC[1]

1. Edson.

The town of Edson was originally established as Heatherwood, but in 1911, was renamed for Edson Chamberlain, vice-president and general manager of the Grand Trunk Pacific Railway.

The steel for the railroad was laid in 1910 and the first train arrived in July of that year.

Wolf Creek, ten miles east of Edson was the original site for the town but real estate brokers had acquired all the property with the idea of reselling it to the rail company, but GTP refused to buy and so Edson was located as a divisional point on a site including much muskeg.

Edson became a town in September of 1911 and a two room school was built during the same year. A 14 piece brass band was organized, and remained active until 1918.

At one time Edson was the jumping off point for the north, and mail for Grande Prairie was taken by stage coach and horseback, from July 1911 to April 1915.

The Edson Leader, the first town paper, was established in 1912. In 1914 Edson got a hospital through the work of the Victorian Order of Nurses. The first child born in Edson was named Edson Reid after the town.

Edson has been primarily a service town. The area derives its income from agriculture, pulp and lumber, and oil. A number of lumber and gas companies maintain their headquarters in this town and a gas processing plant has been built by Hudson Bay Gas and Oil Co.

---

[1] Industry and Development Survey.

2. Hinton.

Forests and fur trapping drew the first white settlers to the area. Large lumber and planing mills were located in the district, harvesting white spruce and pine. Beaver, muskrat, fox and mink were trapped and pelts marketed.

At Prairie Creek just west of the present townsite a railway boom town existed from 1908 to 1911 while railroad construction was being carried out. The town was named for a general superintendant of the Grand Trunk Pacific Railway.

Coal mines operated on a large scale from 1924 until 1941 when the last large mine closed. Smaller operations continued as late as 1946. Hinton has always been a major centre for big game hunting and a number of guides and outfitters operated in the area over the years. Oil exploration and drilling was active in the forties. From 1943 to 1948 wells were drilled at Brule, the Jasper Park gate, and the Muskeg River.

In 1955 North West Pulp and Power leased 3,000 square miles of timber land and started construction of Alberta's first pulp mill which was to cost $42,000,000. Operations commenced during the summer of 1957. A fully modern town was built to meet the needs of plant employees and people in the service industry.

3. Whitecourt.

Long before the problem of naming the town came up, the Cree Indians had named the location Sak-Da-Wah, meaning "Where even the waters come together". From this, Whitecourt with its growing importance as the area's commercial centre, has taken the slogan "Where the rivers meet".

The story of Whitecourt's beginning goes back to 1905 when a small group of settlers were moving north out of Edmonton towards unsettled land and the Peace River district. Inevitably, some of these pioneers settled near the junction of the Athabasca and McLeod Rivers. Their numbers were increased by rumors of a rail link between Edmonton and Grande Prairie via Whitecourt. Surveyors for the Grand Trunk Pacific Railway plotted a rail line across the McLeod River at its junction with the Athabasca. Optimistic settlers saw an important divisional town growing on this land and began to buy the land. Unfortunately it was 1921, sixteen years later, before the first train whistle echoed across the valley, and then it belonged not to the Grand Trunk Pacific but to the Canadian National Railroad.

Fur trapping and lumbering were the chief industries in the area. Oil and gas have since been found in abundance and processing plants have been constructed at Windfall and Swan Hills.

4. Evansburg.

The dates of most of the towns in C. D. 14 coincide with the coming of the railroad. In 1908 Evansburg became a town. The railroad bridge across the Pembina River was completed in 1909. The Duke of Sutherland owned 40,000 acres of land in the area and started the North West Collieries coal mine. In 1922 an explosion in the mine took the lives of two miners and in 1936 the mine closed because of an exhausted supply, and because there was no market to justify opening a new shaft.

In 1941 a creamery began operation and has expanded in recent years.

Sewer, water, and gas were installed in 1957.

Recently peat moss mining has become a major industry.

CLIMATE

The climate of C. D. 14 is classified as boreal, having one to three months with an average temperature of 50°F or more. The boreal zone is characterized by long severe winters, short summers with widely fluctuating conditions and generally low precipitation. To achieve reasonable coverage of climatic conditions in Census Division 14 it was necessary to select reporting stations outside the area.

The monthly and annual temperature averages (Table AI) necessitate the limitation of agricultural production in C. D. 14 to cereal crops and cool season garden crops.

The number of frost free days in an area is a most important determinant of crop production and as Table AI indicates the frost free period fluctuates widely within C. D. 14. The topography of each locality is mainly responsible for this variation.[1/] Low lying areas with poor

---

[1/] Stated on the authority of Professor Longley of Geography Department of the University of Alberta.

air circulation experience a longer period of frost than those areas more favorably located geographically. For example at Hinton where cold air drains into a low lying area with no ready outlet the frost free period is reduced. The killing frost free period (29°F and below) normally excedes the frost free period by 25 - 50%.[2]

Table A-I

AVERAGE NUMBER OF FROST FREE DAYS

	Day of Last Frost	Day of First Frost	Number of Frost-Free Days
Carrot Creek	142	254	112
Edson	167	241	74
Entrance	171	237	66
Evansburg	162	246	84
Hinton	174	237	63
Mayberne	164	251	87
Medicine Lodge	174	257	93
Moon Lake	166	239	73
Whitecourt	168	243	75
Whitecourt Forestry	150	254	104

NOTE: These figures are based on averages of varying number of years, with shorter term averages being adjusted by Professor Longley of the Geography Department, University of Alberta.

Precipitation records show adequate rain fall during the summer; 13 to 15 inches from May to September and 55 inches of snow during the winter. Again there is a wide variability due to the topography within the Census Division. For example Mayberne Lookout has 63% more rain than Entrance in the month of July.

Requisites of Cereal Crop Production.

According to A. C. Carter, Agricultural Institute Review, the requisites of cereal crop production are:

1. Sufficient moisture.

---

[2] This estimate is derived from plotting of the long term mean monthly minimum temperature, a method similarly employed by the Climatoligical Division.

2. A sufficiently long killing frost free period.
3. A sufficiently long vegetation period growing season.
4. A sufficient amount of effective heat.

Carter[1] recommends a minimum of:

1. 80 killing frost free days (28°F or below).
2. 110 growing season days. Mean temperature of 42°F or above.
3. 1,000 degree days (based on 42°).

In most of C. D. 14 climatic conditions are satisfactory in the average year. The growing season is close to 150 days and the number of degree days is 1,800 - 2,100 according to the available information.

However, the reliability of the data is subject to question because many of the recording devices are located in forestry towers and do not necessarily reflect the climate conditions accurately at lower altitudes. Personal observations indicate that crops can be grown successfully as far west as Edson. A survey of over 200 farm operators indicated that field crops froze approximately three years out of ten, and there was little variation within the area and between crops so far as damage from frost was concerned.

In conclusion, frost is an inhibitor to crop production but may not be as severe in high lands as the results of the survey indicate.

---

[1] Agriculture Institute Review.

B. NATURAL RESOURCES

Census Division 14 is rich in natural resources. It contains over fifteen billion tons of coal, vast quantities of oil and gas, and a liberal supply of industrial minerals, including gypsum, limestone and bentonite. At one time the area contained one of the best forests in western Canada but this has since been largely depleted as far as saw timber is concerned. Resources used in recreation are abundant and generally accessible. Streams, rivers, and excellent hunting areas offer potential. Land available for agriculture is limited because of forest reserves and because of poor soil in some areas and adverse climatic conditions. The natural resources are examined in some detail under the headings of land, water, forestry, minerals and recreation.

LAND USE AND CLASSIFICATION

The total area of C. D. 14 is 7,667,200 acres according to the definition of the boundary at the present time. In the near future the area will be increased to be co-terminous with the improvement districts. At the present time part of I. D. 96 and part of I. D. 78 are not included in the Census Division.

Topography varies from gently rolling hills in the east to mountainous terrain in the west. The majority of the area is forested. The soil is generally grey wooded with scattered areas of dark brown and shallow black. While the amount of arable land cannot be determined until a soil survey has been completed, indications are that the supply of land suitable for farming is being depleated and will be exhausted in the near future. Late spring and early autumn frosts are major hazards to crop production, particularly west of Edson and in the low lying areas in the eastern portion of the region. Moisture is abundant and, in fact, has been in excess in some years with the result that farming operations have been periodically delayed.[1]

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[1] More information on soils and topography is available from the Research Council of Alberta in the "Preliminary Soil Survey Report": 64-2. Data is available on climate from the Department of Transport, Meteorological Branch, in "Climatic Maps of the Prairie Provinces for Agriculture, Climatological Studies Number 1" by G. A. McKay.

Because of these limitations the area has been zoned by the Provincial Government according to its suitability for agriculture. The yellow and white zones are available for settlement, the former being subject to the regulations of the Homestead Act. On the other hand, the green zone is withdrawn from settlement and is being reserved primarily for the production of wood and wood products.

A brown zone is proposed in which agriculture may be permitted subject to specific leasing arrangements.

Some early settlers continue to occupy holdings in the green zone. They have an option of disposing of their holdings to the government, or to other parties but cannot purchase additional land from the Crown. This situation may be altered if minor adjustments are made to the boundaries of the zones. A study is now in progress by the Alberta Department of Lands and Forests to this end. Acreages of the zones are listed below.

Table B-I

LAND IN C. D. 14 ACCORDING TO ZONES

Zone		No. of Acres
Green	Willmore Wilderness Park	778,873
	Pulpwood leases	2,827,748
	Pulpwood Reserves	2,058,922
	Other	1,029,736
	Sub-Total	6,695,279
Yellow		951,387
White		20,534
	Total	7,667,200

Source: Forest Surveys and Planing Branch, Department of Lands and Forests.

The map in the pocket of the publication depicts the green and yellow zones, and shows the land that is patented or leading to patent, leased or owned by the Crown.

LAND IN AGRICULTURE

The agricultural land is located in the eastern portion of the Census Division with a narrow strip extending west along Highway 16 to Edson. Most of the soil is grey wooded and is generally low in humus content. In this respect this soil is inferior to soils in the grassland regions of Alberta. However, the area generally has more favourable moisture conditions.

The total area of C. D. 14 is 7,667,200 acres. Of this total 359,975 acres or 4.7% is farm land. (See Table B-II.) A total of 299,551 acres or 80.4% of the area is farmed by the owner while the remaining 60,424 acres or 19.6% is rented.[1/] The following is a summary of trends in the use of land for agricultural purposes:

1. The number of farms in C. D. 14 is decreasing while the average size of each farm unit is increasing.
2. The average number of improved and unimproved acres per farm in Census Division 14 increased by 33.6 and 2.7 acres respectively from 1956 to 1961.

Table B-II

AREA IN FARM LAND IN C. D. 14

1961

	Total Area In Acres	Area In Farm Land	Per Cent Farm Land	Total Assessed Acreage
C. D. 14	7,667,200	359,975	4.7	516,050
I. D. 78	1,646,244	192,542	11.9	259,880
I. D. 79	921,600	--	0.0	2,473
I. D. 95	1,618,560	75,940	4.7	127,757
I. D. 96	1,946,880	14,196	0.7	14,588
I. D. 109	1,393,280	77,297	5.5	111,352

Source: Census of Canada, 1961, Bulletin 5.3-1, and 1961 Annual Report, Department of Municipal Affairs.

1/ Census of Canada 1961, Volume 5.3-3.

3. The total area of farm land in the Census Division decreased by 3.3% from 1956 to 1961. The total area of owned farm land decreased by 48% while the total area of rented land increased by 5.1%.
4. Proportionately, approximately 15% less of the improved land in C. D. 14 is used for summer fallow than in the remainder of the province.
5. A significantly larger proportion of the farm land is used for hay and pasture in C. D. 14 than in the rest of the province, whereas, a significantly lower proportion of the land is used to grow wheat than in the rest of the province.

NUMBER AND SIZE OF FARMS

One of the most significant trends to appear in Census Division 14 is that the number of farms has decreased while the average size of farm has increased.[1]

Table B-III

INDEXES OF FARM SIZE AND NUMBER OF FARMS FOR CANADA

(size and number in 1941 to equal 100)

	1941	1951	1965	1980
Farm size	100	110	124	129
Farm numbers	100	92	84	80

Source: Royal Commission on Canada's Economic Prospects, January, 1957, p.98, Table 44.

The projected increase in farm size from 1941 to 1965 was 24%. The projected decrease in the number of farms for the same period was 16%.

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[1] The 1961 Census farm definition differs from the definition used in the 1956 and 1951 Censuses. In the 1951 and 1956 Censuses, a farm was defined as a holding in which agricultural operations were carried out and which was (a) three acres or more in size or (b) from one to three acres in size with agricultural production during the previous year valued at $250 or more. The 1961 farm definition was more restrictive than the previous definition and some of the intercensal changes in the agricultural statistics for the 1956 - 1961 period were

In Alberta, from 1951 to 1961 the number of farms decreased by 13.2%[2] while the average number of acres[3] per farm increased by 22.3%. In the same period, the number of farms in Census Division 14 decreased from 1,309 to 973 farms, or by 25.5%. Between 1951 and 1961 the average number of acres per farm in C. D. 14 increased from 306.5 to 370 acres (20.8%). Thus, the national trend towards a larger farm unit and a fewer number of farms would appear to be substantially smaller than the provincial and C. D. 14 trends for the period 1951 - 1961. This trend in C. D. 14 is more pronounced than either Alberta or Canada.

The following table indicates the number of farms in C. D. 14 and Alberta since 1951.

Table B-IIIA

NUMBER AND SIZE OF FARMS IN C. D. 14 AND ALBERTA

	C. D. 14				Alberta		
	1951	1956	1961	1964	1951	1956	1961
Number of farms	1,309	1,113	973		84,315	79,424	72,212
Size in acres	306	335	370	447[1]	527	580	645

Source: Tables B-1, B-2, B-3.

[1] From Farm Survey.

According to a survey in 1965, the size of farms has increased considerably since 1961. The percentage of middle sized farms appears to have decreased, while farms of 760 to 1,119 acres have increased.

Tables B-IV indicates the results of the survey.

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due to the change in farm definition. The 1961 definition was more restrictive mainly for the "three acre or more" group because a minimum of $50 sales of agricultural products was required whereas in 1956 and 1951 no minimum production or sales level was required if the size of farm was three acres or more.

[2] Refer to Tables B-1 and B-3.

[3] The average number of acres per farm was calculated by dividing total farm area by the total number of farms.

Table B-IV

FARM SIZE IN SAMPLE

DISTRIBUTION OF FARMS ACCORDING TO SIZE

1965

Size In Acres	Per Cent
10 - 69	2
70 - 239	26
240 - 399	26
400 - 559	18
560 - 759	8
760 - 1,119	16
1,120 - 1,599	4

Source: Farm Survey by the Farm Economics Branch.

Tables B-1, B-2, and B-3 show the percentage of the total farms in each location by size of farm for the years 1951, 1956 and 1961. It should be noted that for the province and Census Division 14, the percentage of farms of less than 400 acres has decreased, while the percentage of farms with more than 400 acres has increased. The greatest decrease in the number of farms has occured in two categories. The number of farms in Alberta in the 70 to 239 and the 240 to 399 acre categories decreased by 35% and 21.1% while the number of farms in C. D. 14 in these categories decreased by 40.6% and 20.6% respectively. The farms in Census Division 14 which have experienced the largest percentage increase in the total number of farms per location are those in the categories 400 - 559, 560 - 759 and 760 to 1,119 acres. The percentage increase (actual number versus total number in each year) in each category from 1951 to 1961 was 2.5%, 2.0% and 3.2% respectively. The actual number of farms in Census Division 14 in the 400 - 559 acre category decreased although the percentage of total farms in this category increased in 1961. The following figures (B-I, B-IA) indicate the relative change in size of farms for these years.

Figure B-1 PERCENTAGE OF FARMS BY SIZE OF FARMS IN ALBERTA 1951, 1956, 1961

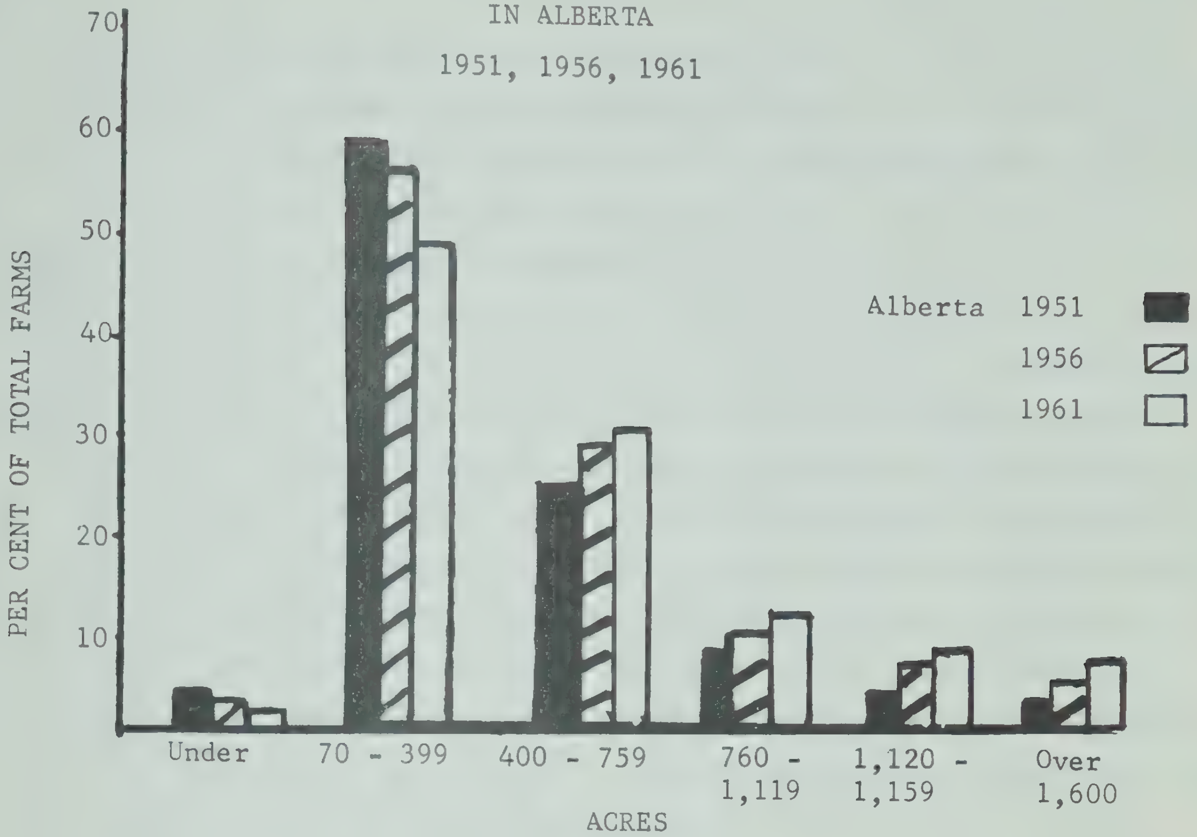
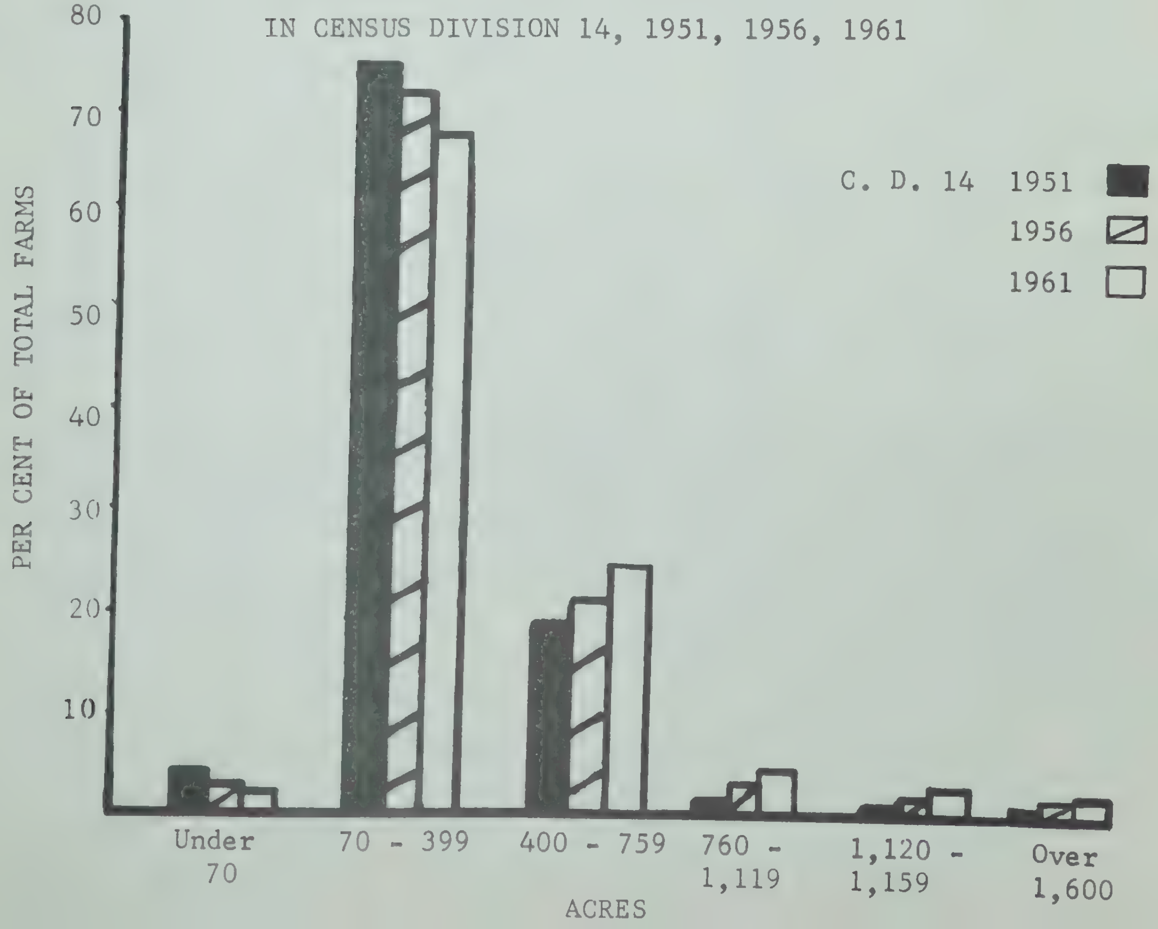


Figure B-1A PERCENTAGE OF FARMS BY SIZE OF FARMS IN CENSUS DIVISION 14, 1951, 1956, 1961



CONDITION OF FARM LAND

In determining the trends present in the use of improved and unimproved farm land by locality for the period 1956 to 1961 the first point to note is that approximately 35% of the total farm land in Census Division 14 and 52% of the total farm land in the province is classified as improved land.[1] A comparison of these two percentages suggests that there is less than an optimum utilization of the total available farm land in C. D. 14 for agricultural purposes.

An examination of Table B-5 indicates that there is a definite trend towards an increase in the proportion of improved land and a decrease in the proportion of unimproved land per farm. Between 1956 and 1961 the average number of improved acres per farm in the province increased from 299.0 to 345.4 acres while the number of unimproved acres per farm increased from 279.8 to 299.7 acres. Reference to Table B-5 shows that the amount of improved land per farm unit expressed as a fraction of the total farm land per farm increased by 1.8%.

In the five year period between 1956 and 1961 the average number of improved acres per farm in C. D. 14 increased from 103.0 to 136.6 acres. The average number of unimproved acres per farm increased from 230.7 to 233.4 acres. Note that while the trend for C. D. 14 follows the provincial trend there are some significant exceptions when the figure for individual improvement districts are considered. First, there were two farms in I. D. 96 in 1961 with a total of 13,814 acres of unimproved land (Refer Table B-4). Ommission of these two figures would drop the average number of unimproved acres per farm in 1961 below the 1956 figure. In effect, there would have been a decrease in the average amount of unimproved land per farm unit in C. D. 14. Secondly, in I. D. 78 and I. D. 95, the average number of unimproved acres per farm decreased from 195.7 and 280.5 acres in 1956 to 187.5 and 250.1 acres respectively in 1961 (Refer Table B-5). The average number of acres of improved farm land in the sample farms was 172.5 acres per farm and unimproved land was 268.6 acres. In percentages,

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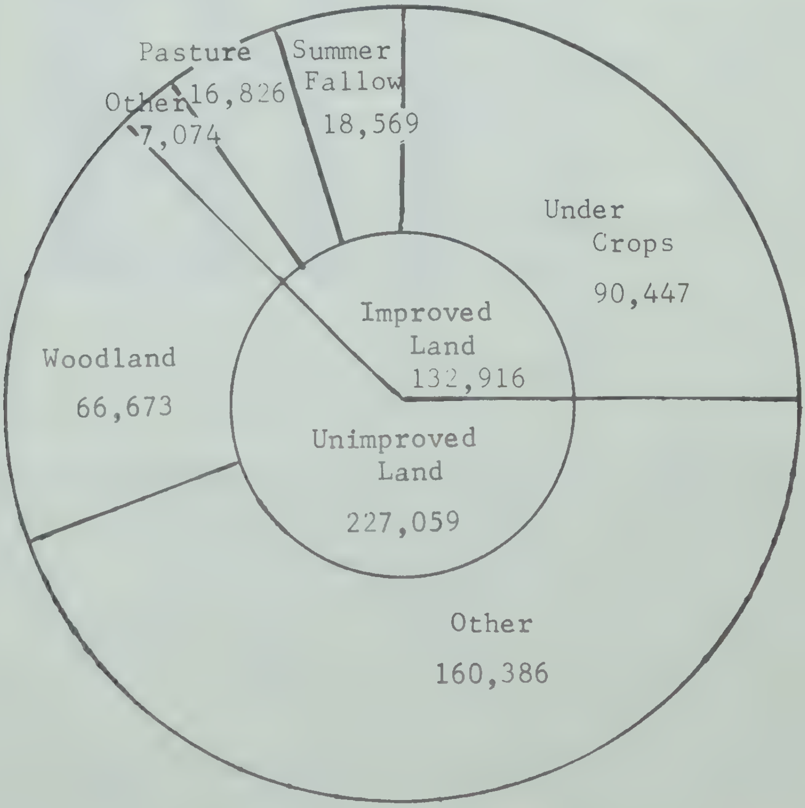
[1] Ibid.

39.1% of the farm land was improved compared to the 1961 Census Division 14 per cent of 31.1%. It appears then that the area of improved farm land has increased substantially. Thus, the trend towards larger farms with an increasing percentage of improved land per farm is more pronounced for the majority of farm land in Census Division 14 than in the province.

LAND USE

An examination of Table B-5 indicates several substantial differences between the provincial and Census Division 14 trends. However, it appears that the percentage of improved land under crops in the province differs only slightly from that in C. D. 14. In 1961 an average of approximately 62% of the improved land in the province and 67% of the improved land in C. D. 14 was under crop. Note that the percentage of land under crop in I. D. 95 increased from 64.9% in 1956 to 74.4% in 1961. This increase is explained by noting that the total farm land area in I. D. 95 decreased by 24.4%. The majority of this decrease occurred in the unimproved land.

Figure B-2
USE OF FARM LAND IN C. D. 14 (acres) - 1961



Source: Census of Canada 1961, Agriculture, Bulletin 5.3-1.

TENURE AND CONDITION OF FARM LAND

Land tenure in 1961 indicated that 299,551 acres were owned while 60,424 acres were rented. The proportion is approximately the same in all improvement districts with the exception of I. D. 96 where a higher proportion of land is owned.

In Census Division 14 the area of farm land owned has decreased while the area of farm land rented has increased. Between 1956 and 1961 the area of farm land owned in C. D. 14 decreased by 4.8% and the area rented increased by 5.1%.[1/] However, the total area of all farm land in C. D. 14 decreased by 3.3%. These trends for Census Division 14 are diametrically opposed to those found in the province. From 1956 to 1961 the area of farm land owned in Alberta increased by 7.8% and the area of farm land rented decreased by 6.4%. The total area of all farm land in the province increased by 2.7%.

It is estimated that in 1965, 86.7% of the farm land was owned while the remaining 13.3% was rented. In Census Division 14, in 1961, 83.2% of the farm land was owned. It appears that the area of farm land owned has increased in Census Division 14 since 1961, indicating that the demand for farm land has increased.

An examination of Census Division 14 for the period 1956 to 1961 by improvement districts[1/] yields important information with respect to increases in total farm area. Two of the five improvement districts in Census Division 14 experienced a decrease in total farm land.[1/] In Improvement District 95 there was a decrease of 21,925 acres or 22.4% in the total farm land area. In I. D. 109 the total farm land decreased by 4,644 acres or 5.7%. The amount of farm land owned in I. D. 95 expressed as a per cent of the total farm land in the improvement districts decreased by 3.2% (1956 versus 1961). In I. D. 109 the percentage of owned land as compared to the total area of farm land decreased by 2.1%. In I. D. 78 the total farm land area increased by fifty-five acres.[1/] Although the total farm land area in I. D. 78 remained virtually unchanged, the area of farm land owned decreased by 2.8% and the area of farm land rented

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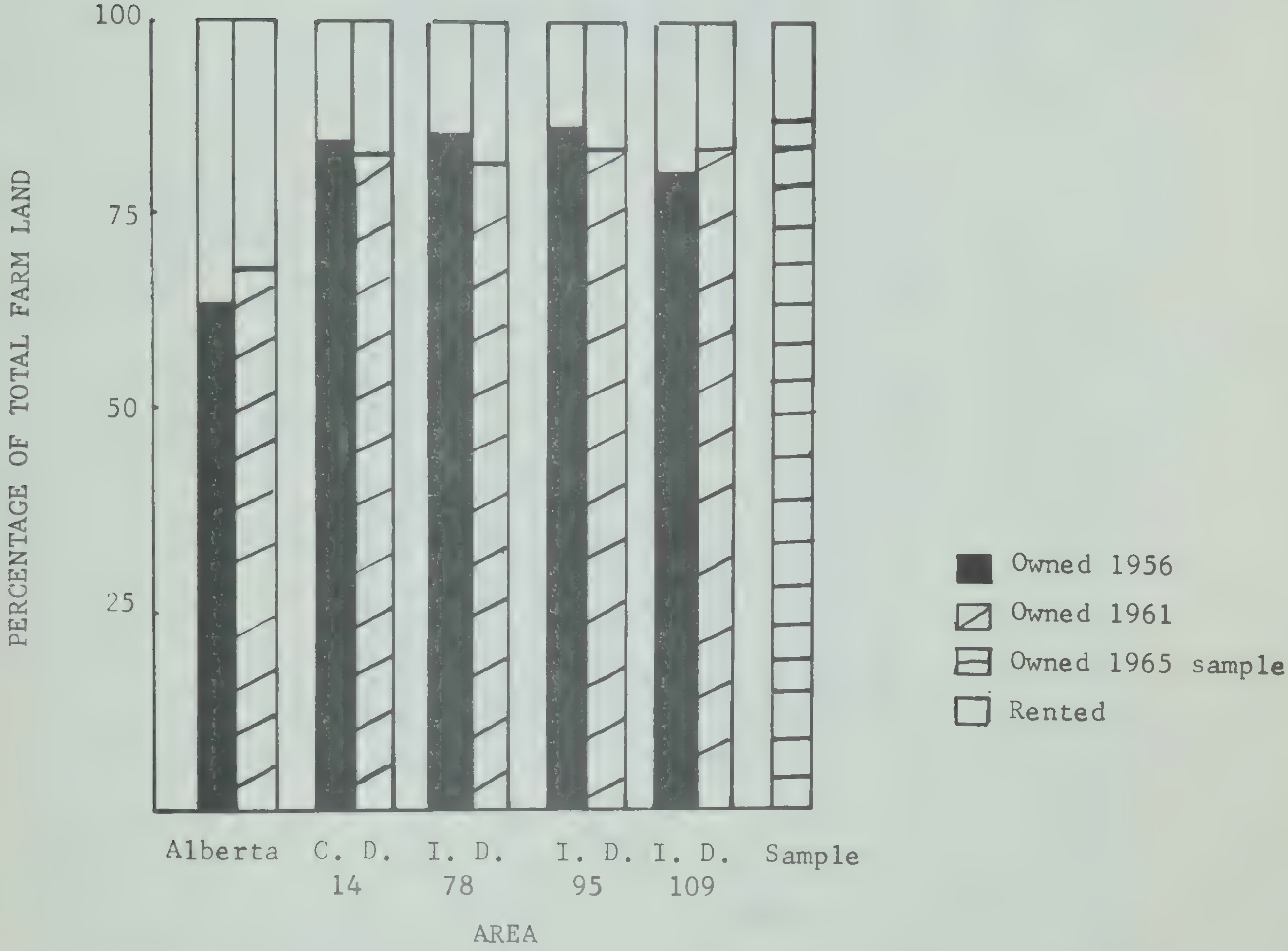
[1/] Refer to Table B-4, Land Use and Classification (area of farm land).

increased by the same amount. In I. D. 96 the total farm land increased from zero to 14,196 acres. In I. D. 79 there is no land area which is classified as farm land.

Figure B-3

AREA OF FARM LAND OWNED AND RENTED
IN ALBERTA, CENSUS DIVISION 14
1956, 1961



NOTE: There was no farm land In Improvement District 96 in 1956.

Figure B-4

CONDITION OF TOTAL IMPROVED FARM LAND

1956, 1961

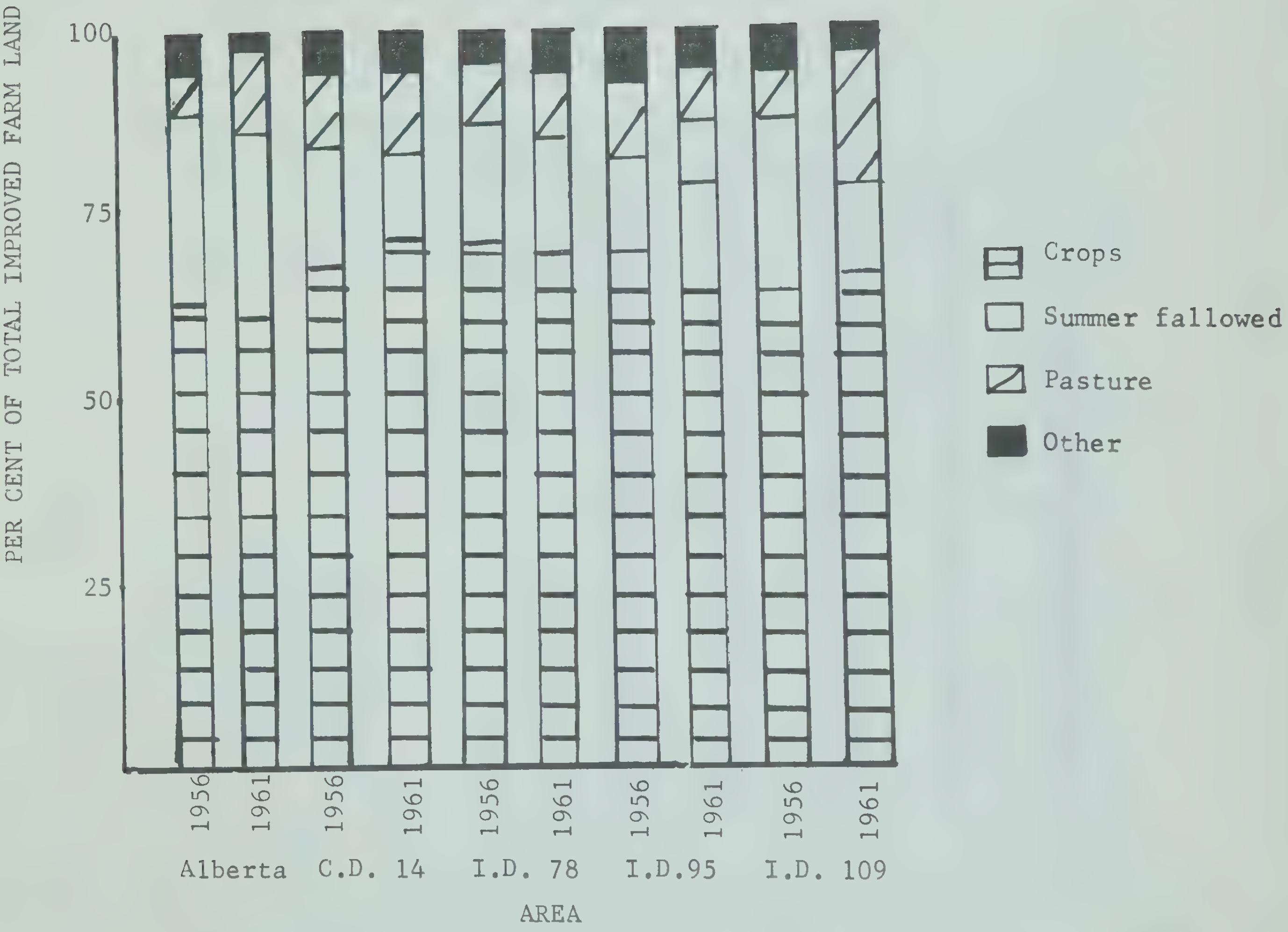
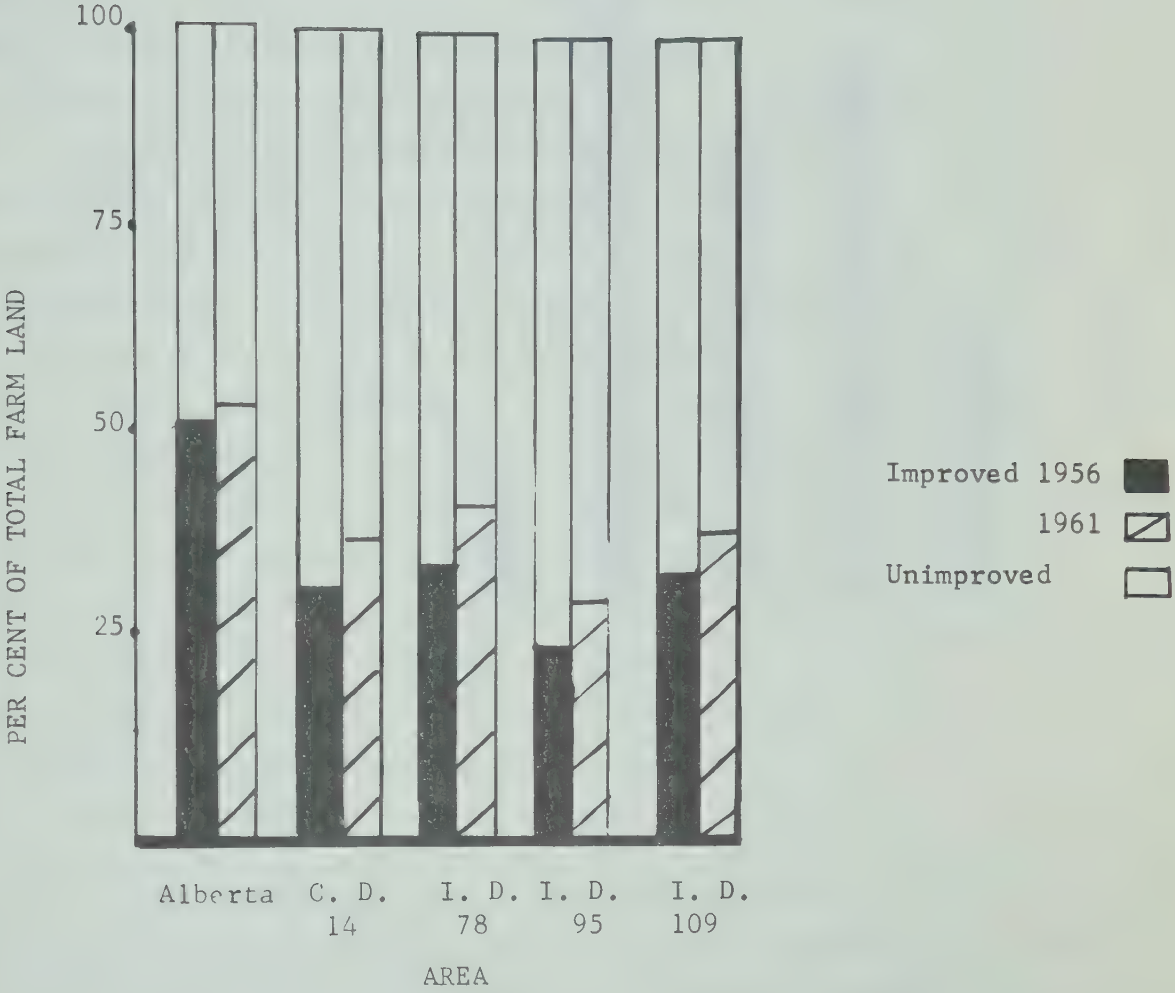


Figure B-5

PERCENTAGE OF FARM LAND IMPROVED AND UNIMPROVED

1956, 1961



A wide discrepancy between Alberta and C. D. 14 occurs in the percentage of improved land summer fallowed. Between 1951 and 1961 the percentage of improved land summer fallowed in the province varies between 27.8% and 29.5%.[1] In C. D. 14 for the same period the per cent of improved land summer fallowed decreased from 17.9% to 14.0%. Approximately

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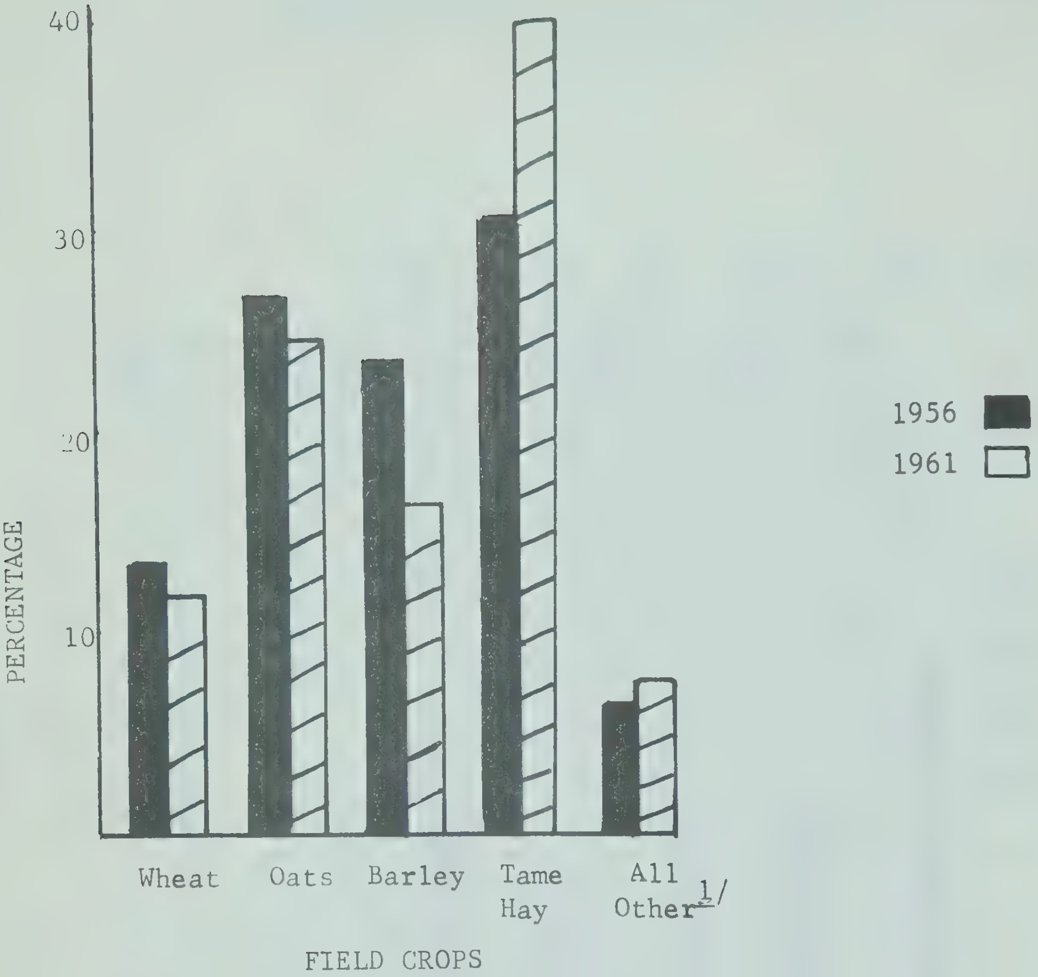
[1] The relatively high percentage of summer fallow in Alberta is due to the extensive use of this practice by farmers in the southern part of the province.

Figure B-6

PERCENTAGE OF TOTAL IMPROVED LAND UNDER CROPS FOR C. D. 14

1956, 1961



15% less of the total improved land is used for summer fallow in C. D. 14 than in the province. C. D. 14 has the lowest percentage of summer fallow per total improved land area of any census division in Alberta.

The provincial and Census Division 14 trends differ in the percentage of total improved land used as pasture. Between 1951 and 1961 the percentage of improved land under pasture in the province increased from 5.0% to 6.5% while in C. D. 14, the percentages increased from 10.1% to 12.7%. There are two points to be considered. First, there appears to be a trend both in Alberta and Census Division 14 towards utilization of a greater

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1/ All other includes rye, flax, mixed grains, rapeseed, and oats for hay.

percentage of improved land as pasture. Secondly, the percentage of improved land used for pasture in C. D. 14 is approximately double that of the province. In effect, on the average, grass-cattle operations are more prevalent in Census Division 14 than in the rest of the province.

The third category of land use to be considered is the percentage of total improved land classified as "other". This item includes the area of barn yards, gardens, lanes and roads in farms, areas of cultivated land that were lying idle, being neither summer fallowed nor cropped, and areas of new breaking that had not been seeded to crop. Areas from which sod is being sold for lawn sodding purposes are also included. Between 1956 and 1961 approximately 2.1% of the improved land in the province and 5.3% of the improved land in C. D. 14 was classified as "other". Between 1956 and 1961 the percentage of total unimproved farm land in woodland in Alberta decreased from 13.0% to 9.7% while the percentage in C. D. 14 decreased from 39.0% to 29.4%. The percentage of the total unimproved farm land classified as other increased from 87.0% to 90.3% in the province and from 61% to 70.6% in C. D. 14. It is apparent that the woodland portion of the total farm land in the province and C. D. 14 is gradually decreasing. Two main reasons may account for this decrease. First, a portion of the woodland is being cleared and broken and placed under crops or pasture. Secondly, the trees suitable for pulp mills, or lumber mills are cut down and the remaining woodland is used as a brush pasture for cattle. Note that the per cent decrease in the total area of unimproved land in the province (1956 versus 1961) is small when compared to C. D. 14 (1.8% versus 5.9%). This is not surprising considering the fact that in 1956 approximately 69.0% of the total farm land in C. D. 14 was unimproved. In general, it appears that the total farm land in C. D. 14 is decreasing, the total farm land classified as woodland is decreasing and the percentage of unimproved land classifed as other is increasing.

IMPROVED LAND UNDER CROPS

Table B-6 shows the percentage of total acres per farm of crop land by specific type of crop for the province and C. D. 14. This shows that from 1956 to 1961 the area of crop land under tame hay in C. D. 14 increased from 30.2% to 40.4%. During the same period the average number of acres of crop land in the province under tame hay increased from 11.0% to 16.0%. Thus, approximately 24% more of the crop land in C. D. 14 is utilized for tame hay than in the rest of the province. The percentage of crop land devoted to cereal crops in C. D. 14 closely approximates the provincial averages except in the percentage of crop land planted to wheat. Approximately 66% less crop land is planted to wheat in C. D. 14 than in the rest of the province. In effect the chief difference in crop land use between C. D. 14 and the province is in the percentage of crop land under tame hay and wheat. It would appear that the percentage of hay steadily increased since 1956. Wheat also has had a moderate increase while oats have declined.

There are a variety of other crops which account for a small proportion of the total area utilized for crop land. Tables B-8 and B-9 do not show any area of crop land under legumes. This is unfortunate because it is desirable to have an estimate of the role legumes play in the rotation of crop cycles in C. D. 14. Legumes play an important role in the maintenance of the soil nutrient level in grey wooded soils. Legumes in Census Division 14 are used for seed in hay production. In certain instances alfalfa or red clover may be the only constituent of the tame hay production on a farm. Generally, most of the hay mixtures in the area contain brome, timothy and legume. The major legumes grown for seed are alsike and red clover.

WATER RESOURCES

The survey area may be called the head waters of the Athabasca River Branch Basin which, in turn, forms part of the Arctic water shed. The district is totally contained within the Athabasca River Branch Basin, with the exception of a small portion of I. D. 79, which drains into the Brazeau River. The Brazeau is a tributary of the North Saskatchewan which in turn forms part of the Hudsons Bay water shed. Some of the main tributaries to the Athabasca River within the area are the McLeod, Pembina, Lobstick, Berland, and Wildhay Rivers. Further information on the presence of lakes and streams is available in the fishing portion of the recreation section.

Hydrometric data available from the Water Resources Branch is as follows:

1. Athabasca River at Entrance

Total flow for year	4,572,000 acre-feet
Minimum flow	610 c.f.s.
Maximum flow	27,350 c.f.s.

2. McLeod River above Embarras River

Total flow for year	553,400 acre-feet
Minimum flow	84 c.f.s.
Maximum flow	13,060 c.f.s.

3. McLeod River near Wolf Creek

Total run-off for year	1,152,000 acre-feet
Minimum flow	256 c.f.s.
Maximum flow	23,320 c.f.s.

4. Pembina River below Paddy Creek

Total run-off for year	322,000 acre-feet
Minimum flow	77 c.f.s.
Maximum flow	6,000 c.f.s. (est.)

5. Pembina River near Entwistle

Total run-off for year	449,300 acre-feet
Minimum flow	28 c.f.s.
Maximum flow	7,140 c.f.s.

6. Wolf Creek at Highway 16

Total run-off for year	89,470 acre-feet
Minimum flow	11.5 c.f.s.
Maximum flow	2,840 c.f.s.

An indication of the size of the Athàbasca may be obtained by comparing it with the Saskatchewan. Outside the survey area at Athabasca, the total discharge of the Athabasca River in the year 1957 - 1958 was measured 10,780,000 acre-feet. At the same time the North Saskatchewan River at Edmonton had a total discharge of 5,976,000 acre-feet, or roughly half the size of the Athabasca.

In addition to surface water, ground water is common to the area. An aquifer[1] of considerable size is reported in the vicinity of Edson. Preliminary study by the Research Council of Alberta has indicated that the water is relatively free of salts. Currently studies are under way to determine the area, volume of water, etc. of the aquifer.

The conservation and utilization of water resources in C. D. 14 are currently being studied by the Water Resources Branch of the Alberta Department of Agriculture. They have proposed a network of dams and reservoirs which will serve to: (1) regulate water flow, (2) control flooding, (3) reduce pollution, (4) divert stream flow. Tentative sites are located on the Pembina, Athabasca, McLeod, Berland and Wildhay Rivers. Plans include the diversion of part of the rivers comprising the Arctic water shed into the Hundson Bay system, providing water for more densely populated urban areas e.g. Edmonton.

Water is one of the most abundant resources in the area and is one of the major items to be considered in attracting new industries. The pulp mills will be by far the largest users of water in the area, but even so, use only a very small quantity of the water available.

Pollution is a problem in certain areas and it is hoped that through legislation and voluntary action this problem may be rectified.

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[1] Underground stream.

FORESTRY

Prior to 1956, the majority of the forest resources in the area were utilized in the lumber industry. This industry primarily consisted of a large number of small, independent sawmill operators who sold their rough lumber outside the area (e.g. Edmonton) and a few large lumber companies who owned their saw and planer mills and shipped their lumber to various Canadian and foreign markets. Seasonal characteristics of the employment requirements of the lumber industry affected the composition and the orientation of the labour force. Large numbers of men were required in the "bush" in the winter to produce the rough sawn lumber but relatively few men were required in the summer to plane and ship the finished lumber. Thus, after spring "break-up" there were a large number of men seeking employment.

The permanent residents in C. D. 14 partially solved this problem of seasonal unemployment. Many of the workers in the lumber industry established their place of residence on farms. During the spring, summer and early fall they worked on their farms and during the winter months they worked in the "bush". The lumber workers who did not have farms usually found employment in construction works in C. D. 14 or in Edmonton. Thus the labour force in C. D. 14 partly consisted of a transient population who relied on at least two industries for their main source of income.

The establishment of the pulp mill in Hinton in 1956 did not disrupt the seasonal nature of the work available in the forest industry. The winter employment available in the lumber industry gradually decreased but the winter employment opportunities available in the woodland section of the pulp mill industry absorbed the majority of these workers. However, the supply of labour derived from the decrease in the number of saw mills in the lumber industry did not provide a sufficiently large labour force for the pulp mill. The result was that the North West Pulp and Power Company was obliged to import pulp cutters from eastern Canada.

There are at least three major effects of the pulp mill on the employment and income of the labour force in C. D. 14. First, the composition of the labour force has changed. The pulp mill employs approximately 550 technical, clerical, professional and management people at the plant in

Hinton. These people have a stable source of employment and are paid a relatively high wage. In effect, the talents and skills available in the labour force in C. D. 14 have been increased and diversified. Secondly, the size of the labour force engaged in the forest industry has increased. The pulp mill provides employment not only in its office, woodland and plant section, but it also provides employment in the trucking of pulp, road construction, etc. Furthermore, there are certain lumber companies which have an agreement with the pulp company under which they remove ties and lumber from lease areas and sell the cordwood they remove to the pulp mill. This provides an additional source of employment for the people of the area. Thirdly, since January 1, 1965 the pulp mill has initiated a policy which will stabilize the employment pattern of the labour force engaged in its woodland section. The pulp mill is attempting to secure a sufficiently large permanent labour force to enable it to cut pulp on a year round basis. This policy will provide a relatively permanent source of employment and income in a sector of the economy which traditionally, has been seasonal in nature. One would expect a marked change in the consumption and savings patterns of this woodland labour force. This may be reflected by an increased demand for new housing, different foods, clothing, furnishings, etc.

Thus, the advent of the pulp and paper industry has resulted in a larger and more stabilized source of income and employment for people in C. D. 14. In addition, the forest management programs carried out jointly by the Alberta Forest Service and North West Pulp and Power Co. Ltd. ensure that the present forest resources will not be depleted. Therefore the net effect of the pulp and paper industry in C. D. 14 has been to instill a greater degree of stability in a resource base which serves as one of the main springs for the economic development of Census Division 14.

In Census Division 14 approximately 90% of the total area of 7,667,200 acres is within the green zone. There are 4.25 million acres of forested land (excluding portion of Wilderness Park in C. D. 14) capable of sustaining an estimated annual allowable cut which is substantially in excess of current production. The value of the annual estimated production of the forest industry in C. D. 14 is second in magnitude only to the annual production of the oil and gas industry. Since 1951-52,[1] the value of forest products has increased by approximately 85% under the stimulus of a very rapidly expanding pulp and paper industry.

While pulp production has been growing, accounting for approximately 70% of the total value of forest production in C. D. 14 in 1964-65, production of other forest products has been declining. In 1951-52,[2] 83.1 million f.b.m. (foot board measure) of lumber were produced but by 1961-62[3] the figure had dropped to 31.7 million f.b.m. However, by 1964-65 lumber production had recovered to a volume of 41.4 million f.b.m. Similarly, railway ties dropped from 1.1 million pieces in 1951-52 to 0.1 million pieces in 1961-62 but recovered slightly to 0.2 million by 1964-65. In 1951-52 there was no production of coniferous or poplar plywood or pulpwood but in 1961-62 production was substantial.

The problem of utilization is essentially administrative in nature. That is, with more effective methods of disposal, protection and reforestation, along with a more intensive utilization of forest resources, the area is capable of producing much more on a sustained yield basis. To this end, important steps have been taken in the recent past and more significant steps are imminent. The establishment of the pulp mill at Hinton was the most important step yet taken in this area. A pulp mill is able to utilize sizes and species of timber which have been previously unmerchantable. Moreover, to ensure itself an adequate supply of pulpwood on a sustained basis, the mill has undertaken a program of reforestation which surpasses any scale efforts to date. North Western Pulp and Power and MacMillan Bloedel have secured agreements with the Government of Alberta under which approximately 2,827,748 acres within Census Division 14 are held under lease with additional options on a reserve area of 2,058,922 acres. In other words, at the present time the pulp companies either lease or have options to lease 83% of the green zone excluding Willmore Wilderness Park, in C. D. 14.

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[1] No manufacturing of either pulpwood or lumber is included in this value, e.g. rough lumber only.

[2] Source: Forest Surveys and Planning Branch.

[3] 1961 figures include value of miscellaneous permits which are not available for 1951 or 1964.

In addition to the timber available in the area for lumber production outside the control of the pulp mills, it is anticipated that considerable quantities will be harvested from the lease and reserve areas. The Alberta Forest Service may sell timber in the reserve areas of N.W.P.&P. until 1968 and has reserved sawlog quotas in the MacMillan Bloedel Limited lease and reserve areas. Furthermore, the pulp companies may remove or permit the removal of overmature timber for sawlog use.

There appears to be little doubt that the establishment of the pulpwood economy in the largest portion of the area has restrained the indiscriminate exploitation of forest resources. The exhaustion of immature timber has been averted by the acceptance of a new philosophy which denies the inevitability of boom and bust through controlled harvests. A degree of stability and prosperity is predicted for the forest industry which until recently, has been thought impossible as long as licensees were transients without any enduring or inherent interest in the forests themselves, or in the communities which grew out of the exploitation of this resource. Government objectives and those of industry have found common ground in their determination to achieve a perpetual forest resource with the consequent expectation that there will be an adequate supply of raw materials of satisfactory quality.[1]

The problem of the disposal of timber in management units outside the lease and reserve areas remains. In the past, timber has been allocated on a basis of competetive bidding, a practice which has led to chaotic distribution and gross overbidding by those small operators who are not equipped to function under burdensome operating costs, and who are unable to expend funds on the restoration of the forest resources which they have exploited. Moreover, operators had no assurance that a continuing supply of timber would be available to them. Recently, the Legislature of Alberta has given the Forest Service authority to implement a quota system of distribution which, it is hoped, will establish a balance between production and allowable cut on a perpetual basis. Each management unit is to be treated as a complete entity; and quotas will not be transferable from one unit to another. The annual allowable cut will be allocated to the established licensees and will be pro-rated on the basis of the average production of each licensee over the past years. Any excess allowable cut in these units and all of the allowable cut in management units in which there are no established operators quotas, will be sold. In all cases quotas are expected to be long term but circumstances will dictate that a renewable time limit be placed on most quotas. Moreover, it is anticipated that all quotas will be reviewed periodically because of variations in inventory, which result from growing conditions, reforestation, changes in utilization or a revision of inventory estimates.

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[1] R. D. Loomis - Paper on the Forest Industry in Alberta, P.8.

The quota system, implemented in the spring of 1966, has a considerable number of advantages.

1. Transients will be eliminated. It will no longer be possible for an operator to go into an area, cut it out, and leave. Henceforth, it will be in the best interests of the operator to lend his full support and co-operation to the Forest Service in its efforts to manage the forests of Alberta on a sustained yield basis.

2. Speculators will be discouraged; first, because the amount of timber sold at auction will be greatly diminished and second, because the market value of a quota will be quite high, thus requiring a large capital outlay. Moreover, purchasers of quotas will not be allowed to sit on a stand of timber waiting for favorable market conditions.

3. With "spheres of interest" established in the various forests, long-term interests of government and industry will coincide.

4. Small operators will be protected. The reservation of some allowable cuts in certain management units for small sales will afford small operators a measure of protection.

5. Small scale operators who have a quota will have a salable commodity.

6. The number of small units will be diminished because:
    a. future sales will be, for the most part, of such a size (i.e. volume) as to permit profitable operation, and
    b. the marketability of quotas will encourage a consolidation at a rate which was previously impossible.

To summarize, the implementation of the quota system will tend to stabilize production and employment in an industry which should gradually expand with improved organization and new long-term goals.

The implementation of the quota system will also present certain problems in as much as it fails to provide the answer to some of the currently developing enigmas. A short discussion of some of the major problems follows.

1. Some quota grants will be of such a volume as will encourage small operations which may be unprofitable to the full time operator.

2. A few current operators will have no quotas. Operators in the N.W.P.&P. Co. Ltd. lease areas will not have a quota and those who have been operating on a small scale in a management unit, which is rapidly being depleted, may be faced with a similar situation. If sufficient capital is available, the operation may buy into another management unit. However, when sufficient capital is not available, alternatives become limited. The operator may:

a. work within the lease areas under agreement with one of the pulp companies;

b. work in the forest industry for wages;

c. undertake a new vocation.

Leases in C. D. 14 have a considerable amount of over-mature timber and in the short run it is expected that there will be ample opportunity for sub-contracting. Total cutting operations coupled with the requirements of the proposed pulp mill will mean that in both the short and long run there will be a very strong demand for labour which is skilled in woods operations; the demand will exceed the supply capabilities of the area itself, at least in the short run.

3. Some quotas will have limited economic appeal. Small quotas situated in more or less isolated areas or with poor quality timber may have little market value.

4. A basic requirement of cutting timber will be the reforestation of cut-over areas. Enforcement of reforestation policies may be a problem in some cases.

5. Management units are to be treated as separate entities and quotas will not be transferable from one unit to another. This will tend to lead to inequitable distribution of timber on a basis of fortuity. For example, where there are few operators and a large allowable cut, operators are likely to be much better off than where the allowable cut is less than the sum of the quotas of the established licensees. Secondly, if the

allowable cut in one management unit should fall while it is rising in others, the licensees in that area will carry more than their share of the burden because, to maintain operations at a given level would mean purchasing a quota in some other unit.

The quota system in its present form is a step in the right direction but does not provide final answers to all problems. However, those people whose incomes will be most seriously affected are those who have insufficient capital to relocate and who reject, by choice, employment in the pulp industry as wage earners. Our studies have indicated that many of these would be better off financially if they would accept employment in the pulp industry. Essentially, the quota system will accelerate and regularize the process of consolidation, thereby bringing into sharp focus the problems of the small operator. It may be concluded that many will benefit at minimal cost to a very few.

In the near future the pulp industry will likely add to its importance with the construction of the MacMillan and Bloedel Mill. As was the case with the Hinton Mill, this mill will support the economy of the surrounding area. The agreement made by the company calls for an initial investment of a minimum of $30 million for a plant, which will produce a minimum of 600 tons of pulp daily. It is anticipated that the initial investment will be substantially above the minimum figure. This means that a very large sum of money will be injected into the local economy as soon as construction begins and a steady flow will commence with the start of production.

Detailed timber production data for C. D. 14 is included in Table B-10. While the value of wood products varies over time, the output in dollars provides an indication of the trend in production. Pulpwood production has become the dominant wood product of the area and will increase in importance with the commencement of operations of another mill. An indication of the change in production is given in the following table. (Table B-V.)

The number of operators is perhaps a more accurate indication of the activity in the industry. In 1958, there were 72 operators engaged in sawing and planing lumber. This number was reduced to 34 in 1961 and declined further to 30 in 1964. The majority of operators were small producers, many on a part time basis.

Table B-V

VALUE OF FOREST PRODUCTS CUT IN C. D. 14

(millions of dollars)

	1951-52	1961-62	1964-65
Lumber	3.1	1.1	2.3
Pulpwood	0.0	4.6	6.8
Other	2.0	0.3	0.4

Source: Alberta Forest Service.

VOLUME OF PULPWOOD AND SAWTIMBER

The tree cover is predominantly pine with aspen forming the second most abundant species. Volume by species and by pulpwood or sawtimber is shown in the following table.

Table B-VI

VOLUME OF WOOD

in Census Division 14

SPECIES	PULPWOOD (millions of cords)	SAWTIMBER (billions foot-board measure)
White Spruce	8.0	4.4
Black Spruce	3.5	--
Balsam	1.7	0.5
Pine	23.6	6.1
Total	36.8	11.0
Aspen	13.4	5.9

Source: Forestry Surveys and Planning Branch, 1965.
NOTE: Based on aerial surveys from 1950 to 1961.
Pulpwood: tree diameter 4" - 9" (generally)
Sawtimber: tree diameter 10" + (generally).

Over fifty per cent of the volume of pulpwood and sawtimber is located within the present pulpwood lease areas, and is therefore controlled primarily by the pulp companies. A large proportion of the remainder is in the reserve areas, leaving a small fraction of the total volume in areas outside the leases and reserves. See Table B-14 for further details.

On a sustained yield basis, annual potential production of pulp in the smaller tree diameter classes is estimated to be 921 thousand cords. Similarly in sawlog sized trees, the annual potential production of sawtimber is 184.2 million board feet. Potential cut by land classification is shown below.

Table B-VII

ESTIMATED ANNUAL POTENTIAL CUT

1965

	CONIFEROUS PULPWOOD cords	CONIFEROUS SAWTIMBER thousand f.b.m.
Pulpwood leases	506,726	109,621
Pulpwood reserves	275,685	59,545
Green zone (outside pulp leases and reserves	116,433	14,476
Yellow zone	22,220	560
Total	921,064	184,202

Source: Forestry Surveys and Planning Branch 1965.

Pulpwood, in general, refers to trees four to nine inches in diameter and sawtimber, in general, refers to trees ten inches and over.

Further data on volumes of the various species is available in Table B-15, appendix.

MINERALS

OIL AND GAS

The development of the oil and gas resources in C. D. 14 has occurred in the last ten years. The characteristic pattern of development of these two new resources has affected the economic growth of the area. It is suggested that the oil and gas industry has the highest capital to labour ratio of any of the primary industries located in C. D. 14. Furthermore, the total value of the output from the gas and oil fields far exceeds the value of the produce sold from the other primary industries.

The initial effect of the gas and oil industry on the economy of C. D. 14 was to add hundreds of workers to the labour force. The upsurge in the demand for goods and services by the various members of the oil drilling construction and pipeline crews in the area was of a relatively short run nature but it induced business men to invest in new stores, hotels, auto courts, etc. In effect, the large fixed capital formation undertaken by the gas and oil companies resulted in the importation of large numbers of skilled workmen, machinery and services into the area. C. D. 14 could not provide the specialized equipment and labour required in this process but it could provide many of the retail and personal services required by the labour force. The result was that a large investment by a primary industry induced a relatively large investment in the tertiary industries. Thus, it is partially due to the influence of the investment in gas and oil during the past ten years that towns such as Edson and Whitecourt have experienced their rapid rate of growth.

It is suggested that the portions of the tertiary industries in towns which have developed primarily because of the oil and gas boom would begin to enter a recession as soon as the major portion of the labour force moves into new fields of exploration that are beyond towns' spheres of influence. This would not appear to have happened in either Whitecourt or Edson. There are at least two reasons for this. First, sulphur extraction plants have been or are being erected near Whitecourt[1] and Edson.

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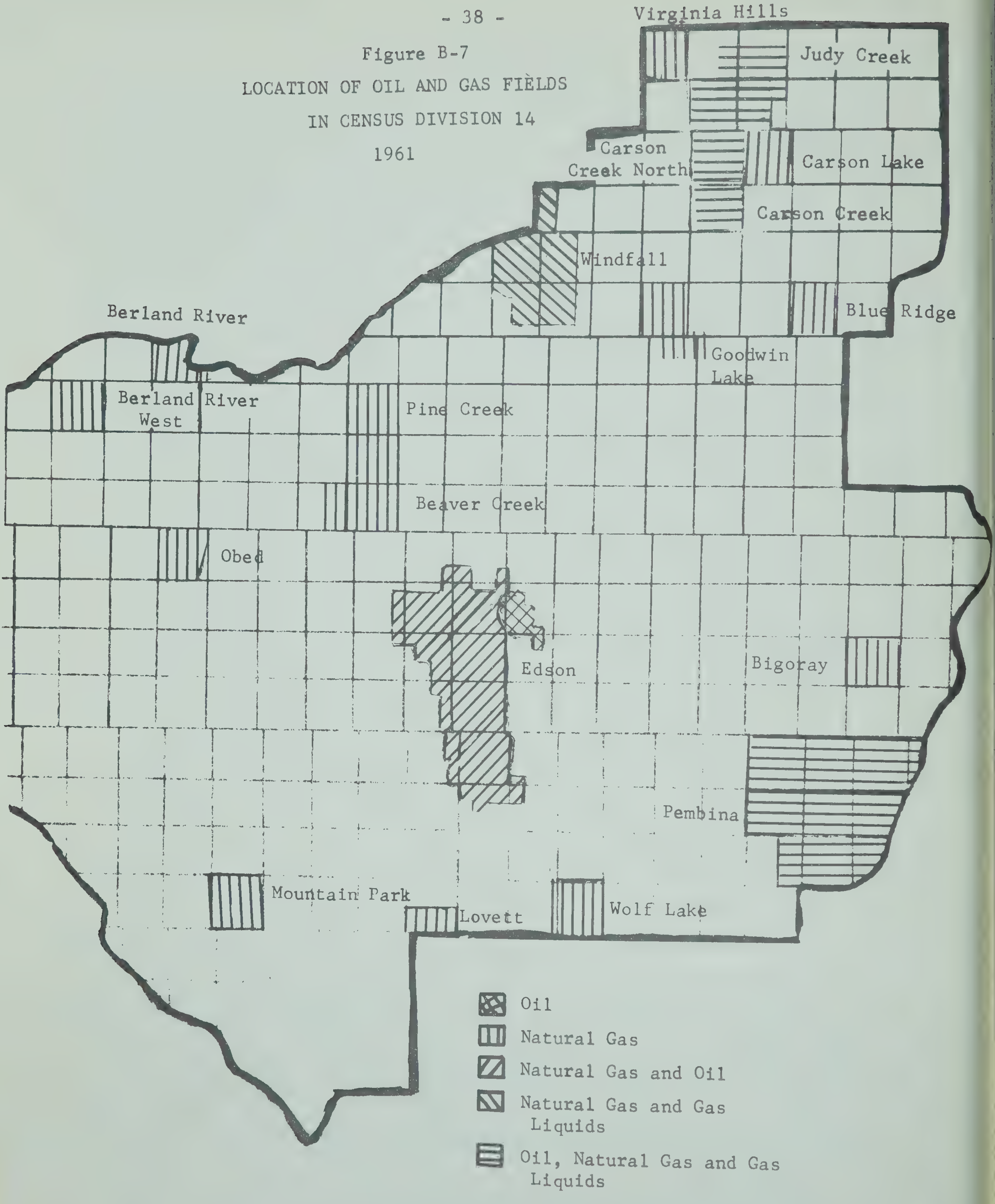
[1] There is also a small plant near Whitecourt which supplies "natural" gas to the town.

Figure B-7

LOCATION OF OIL AND GAS FIELDS
IN CENSUS DIVISION 14
1961



Thus, there is a relatively stable source of income and employment for the workers employed in these plants. Secondly, there are small numbers of workers engaged in maintenance and oil servicing of the gas and oil installations in the area. Thirdly, both Whitecourt and Edson have resource bases other than gas and oil which give employment and income to the residents in their service areas. In the Edson area two of the resource bases (pulp and agriculture) have been consistently expanding. The services industries in Whitecourt are not oriented to the agricultural industry in its immediate vicinity. It is suggested that any decrease in the demand for goods and services due to the decrease in the labour force employed by the gas and oil industries could at the most only have a short run effect on employment and income levels in the Whitecourt area. MacMillan Bloedel have indicated that construction will commence by 1968. The effect of erecting a pulp mill in Whitecourt or in its immediate vicinity would be to create another "boom" period for the town.

In summation, it appears that the induced investment carried out by the tertiary industries in order to capitalize on the short run demand for goods and services arising from the transient workers employed by the oil and gas industry has not resulted in an oversupply of tertiary services.

Crude oil production rose from 11,393,000 bbls.[1] in 1959 to 24,749,000 bbls. in 1964 (Table B-11); raw gas production jumped from 12,185 b.c.f.[2] in 1959 to 162,721 b.c.f. in 1964 (Table B-12).

Oil reserves in the area as of December 31, 1963 totalled 1,697 millions of stock tank bbls.[3] (Table B-VIII). However, since the initiation of water injection schemes, it is expected that revised estimates of reserves will double estimates based on natural depletion. The estimated 300 billion bbls. of reserves in the Athabasca "tar sands" represent a potential competitor for oil production throughout the province. However, pipeline development and construction, for the time being, gives a transportation advantage to developed areas, including Census Division 14.

With the completion of the gas pipeline joining the Edson field to the main transportation network and the decision in November, 1964 to increase exports from the province, increased production of natural gas is anticipated in Census Division 14.

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[1] bbls. - barrels.

[2] b.c.f. - billions of cubic feet.

[3] 1 stock tank barrel = 1 standard barrel

Table B-VIII

PROVED RESERVES OF CRUDE OIL IN CENSUS DIVISION 14

December 31, 1963

FIELD	CARSON CREEK NORTH		JUDY CREEK	PEMBINA[N]	VIRGINIA HILLS[N]
POOL	Beaverhill Lake A	Beaverhill Lake B	Beaverhill Lake	Cardium A & B	Beaverhill Lake
Original Crude Oil in Place (Millions of S.T. Bbls.)[1]	68	200	770	4,300	460
Recovery Factor Fraction	0.15	0.15	0.35	Area "A" 0.15 Area "B" 0.45	0.17
Initial Recoverable Crude Oil (Millions of S.T. Bbls.)	10	30[2]	270	1,130[3]	78[2]
Cumulative Production to December 31, 1963 (Millions of S.T. Bbls.)	1.4	2.7	13.3	594.2	9.1
Remaining Recoverable Crude Oil as of December 31, 1963 (Millions of S.T. Bbls.)	8.6	27.3	256.7	1,335.8	68.9

Census Division 14 Total Reserve 1,697 Millions of Stock Tank Barrels.

1/ S.T. Bbls. - Stock Tank Barrels.

2/ Fluid injection systems are in operation but no additional recoverable reserves are attributed to them as yet.

3/ Increase reserves attributable to fluid injection schemes.

N/ Not wholly within Census Division 14.

Figure B-8

TOTAL RAW GAS PRODUCTION IN C. D. 14

For Years 1955* - 1964

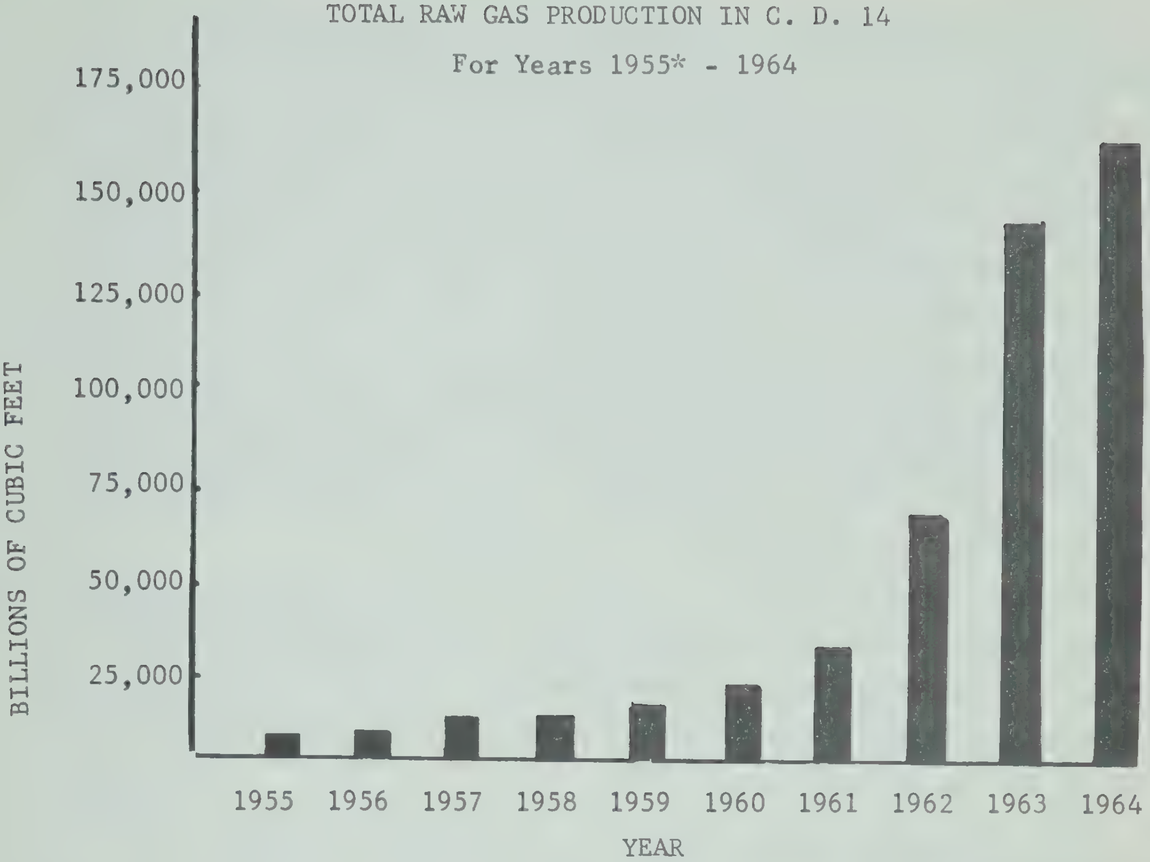
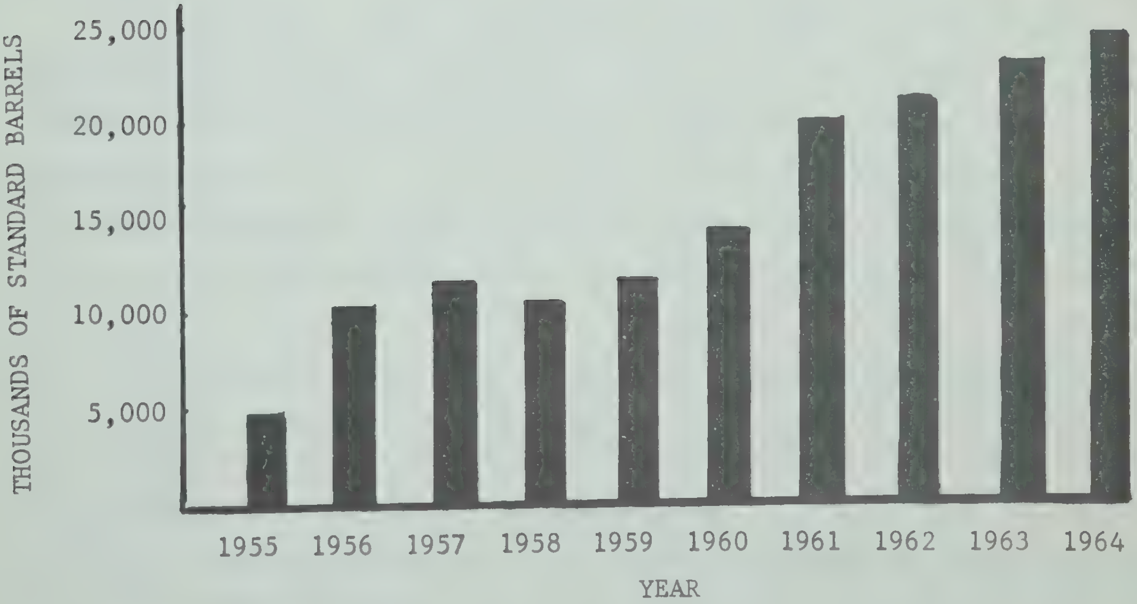


Figure B-9

ESTIMATED CRUDE OIL PRODUCTION IN C. D. 14

For Years 1955* - 1964



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* Production before 1955 negligible.

Source: Industry and Development Report on C. D. 14.

There are two factors of primary importance which severely limit the applicability of any conclusions drawn regarding the oil and gas industry. Firstly, this industry is highly capital intensive and any development undertaken will be carried out by large corporate structures with extensive research facilities. It is anticipated that they will continue to rely on these facilities and to operate independently of any recommendations presented after this necessarily cursory examination. Secondly, the Oil and Gas Conservation Board operates to effectively to control production so that maximum production will result from existing reserves, and "to afford each owner the opportunity of obtaining his share of the production of any pool". In other words, efforts by a given locality or district to encourage development are restricted.

Employment in the oil and gas industry is characterized by a very high degree of variability. Drilling operations are sporadic and crews tend to be quite specialized and highly mobile. The construction of a plant or a pipe line requires the application of extensive amounts of labour but for limited periods only.

COAL RESOURCES

Initially, coal provided the primary source of industrial power for the province. Operations in C. D. 14, supplying much of the total supply of coal, have been a major contribution to this source. However, because the power market is dynamic and the most economical source of power will dominate the market, coal mining operations have felt the pressure of competition from both other coal fields and other power sources, for example natural gas and oil. This has resulted in diminishing coal production and increasing production of oil and natural gas in the area.

Problems facing the coal industry are such that the limitations on coal development are market limitations - that is, resources will be developed only under such conditions as will allow a competitively priced end product to be placed at the disposal of the consumer. As lower cost coal has become available, production in C. D. 14 has declined from the 1949 total of over two million tons to the 1964 total of sixteen thousand tons, with no production from Mountain Park, Prairie Creek or Whitecourt.

Estimated coal reserves are approximately 15 billion tons, and are classified into groups according to quality. Much of the coal in the area is said to be in Group I, a grade which is unsurpassed in Western Canada in commercial quantities. The following two pages, along with Table B-18 appendix, refer to the quality and quantity of coal in the area.

Group I

Low volatile, non-coking and coking bituminous coals. Range of typical analysis: moisture 1% to 2%, ash 8% to 10%, volatile matter 10% to 16%, fixed carbon 73% to 80%, heat value 14,000 to 14,200 B.T.U. per pound.

Group II

Medium and high volatile coking bituminous coals. Range of typical analysis: moisture 1% to 4%, ash 8% to 15%, volatile matter 20% to 36%, fixed carbon 46% to 65%, heat value 12,000 to 13,500 B.T.U. per pound.

Group III

High volatile C bituminous non-coking coals. Range of typical analysis: moisture 7% to 12%, ash 7% to 13%, volatile matter 32% to 35%, fixed carbon 41% to 50%, heat value 10,400 to 11,900 B.T.U. per pound.

Group IV

Sub-bituminous A and B non-coking coals. Range of typical analysis: moisture 16% to 25%, ash 6% to 12%, volatile matter 26% to 32%, fixed carbon 38% to 45%, heat value 8,500 tp 10,000 B.T.U. per pound.

Group V

Sub-bituminous B and C non-coking coals. Range of typical analysis: moisture 24% to 30%, ash 5% to 9%, volatile matter 27% to 30%, fixed carbon 35% to 40%, heat value 7,700 to 9,000 B.T.U. per pound.

Source: Schedule B, Alberta Coal Sales Act.

Coalspur - Extremely large reserves of Group III coal exist in this area and are all underground. Further development in this area would depend on the development of a local market and the only potential purchaser of any significance currently employs natural gas as a power source.

Smoky - Efforts are currently being made to exploit reserves in this area.

Brule - This area has large reserves of Goup II coal but adequate reserves of coal of equal quality exist in areas which are more accessible and in which operations are already established.

Prairie Creek - Reserves in the Prairie Creek area are extensive, but again demand is not sufficient to evoke any efforts of development in this area.

Whitecourt - This area should be considered to have no economic coal resources for production in the forseeable future.

Pembina - The extremely rich field at Wabamun is located outside of Census Division 14. The single mine currently in operation in the C. D. 14 portion of the Pembina field should have ample reserves for continued operations for the forseeable future.

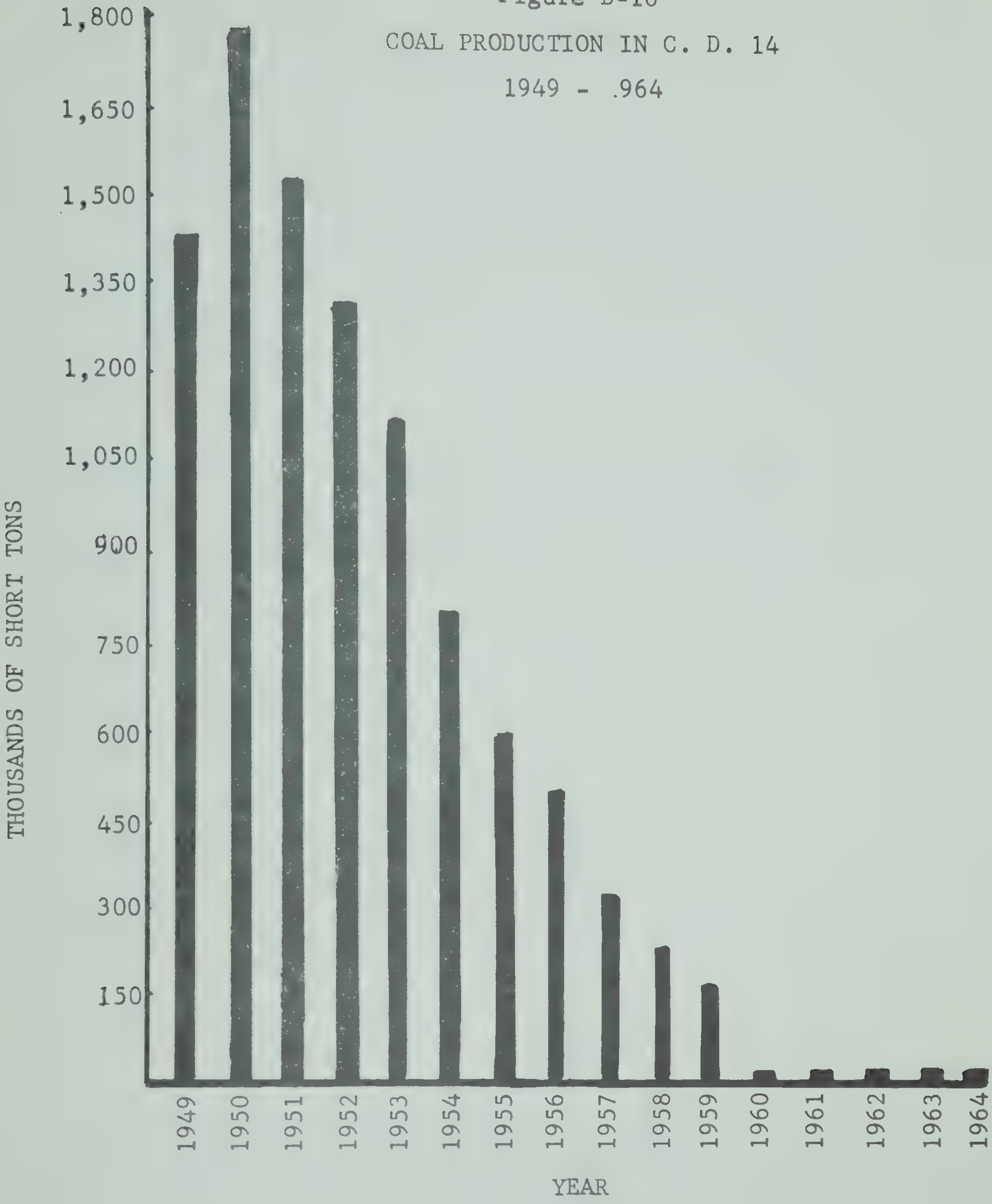
EMPLOYMENT

The number of workers employed in the coal industry has declined drastically since 1949. This decline has been the result of the cessation of operations of many small mining organizations and the extensive mechanization in the larger, more efficient strip mining operations, producing as much as 55 tons per man per eight hour man shift. Substantial impact on employment can be expected from any development which might be undertaken.

Figure B-10

COAL PRODUCTION IN C. D. 14

1949 - .964



OTHER MINERALS

SULPHUR

The world sulphur market has been re-assessed in recent years with the result that the situation of over supply in 1958 has become one of a strong effective demand.

Production of sulphur in Census Division 14 has been restricted to the Windfall field and the record is as follows.

	WINDFALL	ALBERTA
1962	127,000 long tons	972,000 long tons
1963	219,000 " "	1,228,000 " "
1964	227,000 " "	1,413,000 " "

Established reserves in Census Division 14 as of December 31, 1963:

Pine Creek	8,190,000 long tons
Windfall	4,050,000 long tons.

Expanding gas sales and increased technical sophistication are expected to act as strong catalysts for sulphur production for the future. Extensive sour gas pools at Edson have the potential of being a major source of sulphur.

LIMESTONE

Limestone deposits are located near Cadomin, Brule, Roche Miette and Henry House in the National Park. Quarrying operations are currently being carried out at Cadomin and the limestone is used mainly in the production of cement and cement products and satisfied the local market for these products. Some of the exposures measure 180 - 250 feet thich. Outcropping composed of pure limestone with occasional partings of magnesium limestone are located three miles south west of Brule. Thickness extends up to two hundred feet.

Limestone was mined from the Roche Miette deposit a number of years ago. The thickness of this pure limestone deposit is about 15 feet.

Analysis of limestone in the three areas cited above is provided on page 66, Minerals of Alberta.

MARL

A deposit of Marl is found near the town of Marlboro. Extent and quantity is unknown at present.

GYPSUM

Gypsum is found within the Park boundaries in Tp. 51, R. 5, W. 5, and on the Alberta - British Columbia border at the headquarters of the Featherstonehaugh Creek in Tp. 55, R. 13, W. 6.

Source: "Industrial Minerals of Alberta", Govett & Byrne, p. 53.

TOURISM AND RECREATION

Alberta undoubtedly has a significant resource in the natural beauty and utility of its varied landscape. Tourist expenditures in the province in 1964 were an estimated $115 million, a decline over the previous year due to an unusually cold and wet summer. In 1964, more than 2.5 million tourists visited Alberta's National Parks and reports indicate that both the expenditures and the total numbers of the tourists will be surpassed in 1965, an encouraging trend. Associated with tourism is recreation and together they combine to become an increasingly important industry, ranking third largest in the province.

For each of the last three years, tourist revenue for Alberta has been well over the $100 million mark. Since 1946 the increase in number of tourists is approximately 70%, however C. D. 14, notwithstanding its potential for this industry, has not benefited immeasurably from this trend.

In order to compute the tourist revenue of a particular year, one must know the number of tourists, length of attendance, and expenditures per day. In Alberta, tourist revenue is estimated on the average expenditure of the total number of park visitors. Census Division 14 has parks on both the west and the east boundaries which provide these figures. Assuming that 50% of Pembina River Park visitors and 25% of the west-bound motorists are tourists a figure of 30,000 is derived, one-third of whom stop at the Hinton and Edson Tourist Bureaus and one-sixth of whom tour the Hinton Pulp Mill. The comparatively small total is partly explained by the fact that due to the relatively short driving time between Jasper and Edmonton, a large percentage of the tourists will not stop for accommodation, food or fuel, (see Figure B-12). In 1963 there were 3,856,016 visitors to Alberta's Provincial and National Parks. Accepting the 30,000 figure would mean that Census Division 14's share of visitors would be only .78% of the total provincial visitors.

Tourist expenditures have been calculated by the Canadian Tourist Association. Their breakdown of the tourist dollar is indicated on the following page.

Length of attendance is another factor in the assessment of tourist revenue. According to the 1963 Travel Survey by the Alberta Travel Bureau,

Retail purchases	$0.25
Food	0.22
Accommodation	0.17
Service Station & Garages	0.12
Entertainment	0.09
Transportation	0.07
Refreshments & Roadside	0.05
Souvenirs	0.03
Total	$1.00

the average length of visit for 1963 increased from 2.7 days in 1962 to 7.7 days in 1963. The average party consisted of 3.7 persons of which 2.7 were adults. The average daily expenditure of $6.95 per person, and $25.80 per group compares favorably with the reported average daily expenditure in 1962. Based on the average visit of 7.7 days, individuals spent $53.30 whereas groups spent $197.88.

Since most of the tourist are enroute, and do not consider C. D. 14 as a destination, we cannot assume that the tourists will spend 7.7 days in the area. One would have to use a figure of 2.7 days or less. A conservative estimate for tourist expenditure in C. D. 14 could be as follows:

30,000 tourists x 2 days x $6.95 per day equals $417,000.

A comparison of the revenue figures for C. D. 14 and Alberta show that C. D. 14 represents less than .5% of the total.

Using the breakdown produced by the Canadian Tourist Association, the revenue from different services would read:

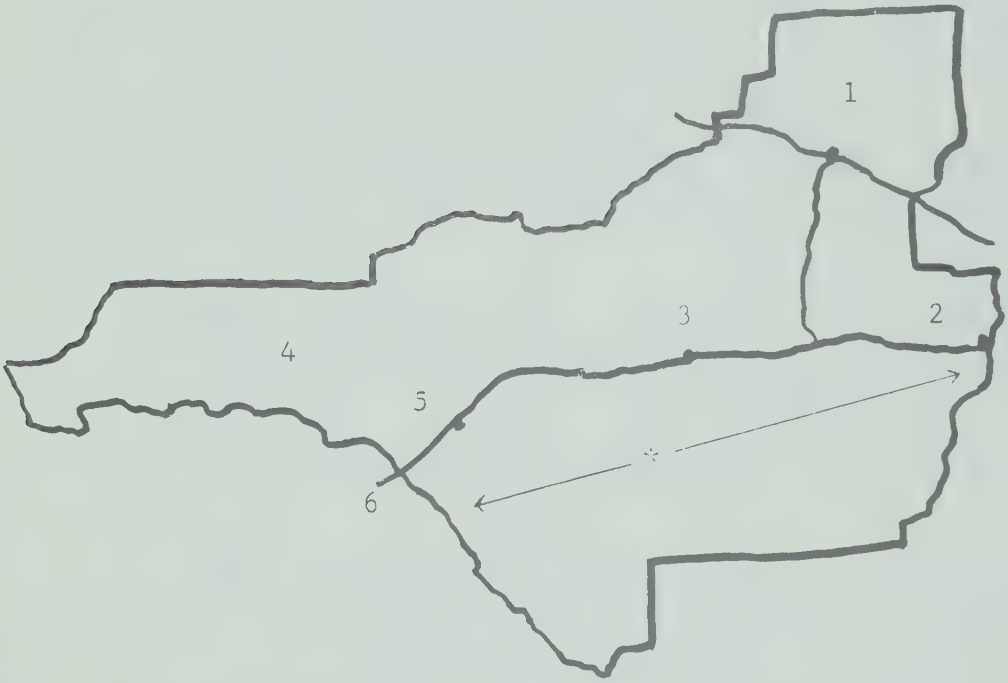
Retail purchases	$104,250
Food	91,740
Accommodation	70,890
Service Stations & garages	50,040
Entertainment	37,530
Transportation	29,190
Refreshments & roadside purchases	20,850
Souvenirs	12,510
Total	$417,000

In summary, the figures indicate that tourist definitely frequent the area in appreciable numbers, if only on a temporary basis. Presently the tourist season in the area is short, extending primarily from the first part of June to the first part of September. However, there is no reason why tourist potentials could not be developed to attract tourists over a larger portion of the year and also retain them for a longer period of time other than for meals, overnight lodging, etc.

Figure B-11

NUMBER OF TOURISTS AT SELECTED CENTERS

1963 and 1964



1 - Whitecourt Tourist Bureau, 2,000, 1964.
2 - Pembina River Park, 61,330, 1963.
3 - Edson Tourist Bureau, 10,000, 1964.
4 - Entrance Park, 3,720, 1963.
5 - Hinton Pulp Mill, Hinton Tourist Bureau, 10,000, 1964.
6 - Jasper, east to west, 126,000, 1963 - west to east, 130,000, 1963.
* - Jasper National Park - Pembina Park, 130 miles.

RECREATION AND TOURISM FACILITIES

Recreational Facilities

Tourist facilities in the Census Division are varied and extensive. The Forest Service maintains recreation areas which are developed and maintained in the forest areas by the Department of Lands and Forests for the convenience of the travelling public. Forestry campsites with names and facilities are listed in the following table.

Table B-IX

FOREST SERVICE RECREATION AREAS - April 1963

Name of Campground	Shelter	Stove	Toilets	Tables	Fireplace
Adam's Creek				2	
Big Berland	1	2	2	6	
Coal Valley		1	1	3	
Cut-off				2	
Embarras			2	2	
Erith River				2	
Fickle Lake			1	3	
Gregg River		1		3	
Goose Lake	1	1	2	4	
Hay Pinto				1	1
Hay River	1	2	2	6	
Hornbeck					1
Jarvis Lake				2	1
Kinky Lake			2	2	1
Lovet River	1	1	1	1	
McLeod River	1	1	2	4	
Mile 10			2	2	1
Mile 26				1	1
Moberly Creek				2	
Noceni		1	1	4	
Ogre Canyon				2	
Petite Lake				2	
River View			2	4	2
Rock Lake East	1	1	2	6	1
Rock Lake West	1	1	2	4	
Solomon Creek				4	
Sundance Creek			2	4	2
Wampass Creek				2	1
Watson Creek				1	
Whitehorse			2	2	1
Wildhorse Lake			2	2	1

Source: Department of Lands and Forests.

Some of the more popular campsites for travellers, are those provided by the department of Highways. Facilities provided for all the campsites are generally: kitchen shelters with stoves, tables, firewood, outdoor stoves or fireplaces, water and toilets. Table B-X lists the location of the campsites.

Table B-X

ALBERTA HIGHWAY CAMPSITES

Highway No.	Camp No.	Camp Name	Location
16	249	Carrot Creek	1½ miles W. Carrot Creek
16	169	Edson	7 miles E. Edson
16	23	Little Sundance Creek	7 miles W. Edson
16	199	Hornbeck Creek	On Sundance Creek 10 miles W. of Edson
16	2	Obed Lake	22 miles E. of Hinton
16	85	Roundcroft	12 miles E. Hinton
16	248*	Hinton	In town of Hinton
16	24	Maskuta Creek	6 miles W. Hinton
32	98	McLeod Valley	4 miles N. Peers
43	111	Whitecourt	2 miles E. Whitecourt
43	187**	Groat Creek	11 miles S.W. Whitecourt
43	216	Chickadee Creek	11 miles W. Whitecourt
47	256	Lambert Creek	15 miles N.E. Robb
47	255	Coalspur	4 miles S. Robb
47	254	Mile 16 Coal Branch	16 miles S.W. Robb

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* Partly built by Town of Hinton.

** Not on Highway 43 but on road north of Highway 32.

Source: Alberta Government Travel Bureau Accommodation Guide, 1965.

Public parks are readily accessible to people in the area and are well maintained. Among the parks, Jasper National Park, forming the west-most boundary of C. D. 14 is most popular. Provincial Parks include the Pembina River Park, consisting of 493 acres on the Pembina River between Evansburg and Entwhistle and Entrance Provincial Park, comprising 6,400 acres, located north-west of Hinton. Attendance figures for the years 1961 to 1963 for the provincial parks follows.

	1961	1962	1963
Pembina River	32,610	46,763	61,330
Entrance	5,123	2,034	3,720

Attendance figures from 1961 to 1964 at Pembina River have increased nearly 90%. Entrance Provincial Park figures are low primarily because it is a new development and has not had much publicity.

Other parks include: Chip Lake (3 miles west of Wildwood), Surprise Lake (11 miles east of Edson), Bear Lake (12 miles north-west of Edson), and Carson Lake (10 miles north of Whitecourt). These parks are maintained by their respective improvement districts, and primarily serve local interests.

Other Recreation

Golf

There are four well landscaped, nine hole golf courses in the area, located at Hinton, Edson, Evansburg and Whitecourt. Although outside the area, a fifth golf course, located in Jasper National Park, might also be mentioned. Conditions are generally not crowded and fees are nominal. Interestingly enough, from any one course in the area it is no more than a one hour drive (approximately 50 to 60 miles) to an alternative course.

Swimming and Boating

At present, beautiful outdoor swimming pools are located at Edson and Hinton. Swimming facilities are also available in the provincial and improvement district parks, e.g. Pembina River Park, Bear Lake Park, etc.

Boating, which is becoming an increasingly popular outdoor sport, is also popular in C. D. 14. Boat rental facilities are available at many of the lakes. Furthermore most of the lakes are readily accessable. However, both swimming and boating are generally restricted to the months of July and August.

Winter Sports

This recreational field has a tremendous potential, particularly the sport of skiing. Edmonton, with a population of 357,696 has one of the largest ski clubs, numerically, in Western Canada. However, at present the major ski runs are at Banff and Jasper, both at over two hundred miles, one way, from Edmonton. Therefore, ski developments should be well supported in this area. Presently, only the town of Hinton has a ski development, however there is talk of prospective development in other areas. In particular, there is considerable interest in the development of a House Mt. complex (south-east of Whitecourt). Reliable sources indicate that this area has tremendous potential because of its relative proximity to a large population and because of its innate developmental potential. Curling and skating, more popular with the residents might even be promoted along with skiing.

Historical Sites and Points of Interest

C. D. 14 has many sites that still lie unmarked, e.g. mines and ghost towns are not considered historic yet, but may be in the near future if they are not destroyed.

There are not any cairns or monuments in C. D. 14, however, there are two highways signs paying tribute to history. One highway sign near Hinton pays tribute to the great water route along the Athabasca River in connection with the discovery of the Athabasca Pass in 1810. A rustic sign on Highway 16 east of Edson, pays tribute to the first major trail of settlers into the Peace River country via the Grand Prairie Trail. History supplies the potential for development of numerous historical sites.

They include:

a. the route of gold seekers in the area,
b. the discovery of the Athabasca Pass by David Thompson,
c. the discovery of coal,
d. Cadomin Cave,
e. geological interests.

ACCOMMODATIONS

In addition to the preceding campsites, there are numerous other tourist accommodations located throughout the area. The location and description of these establishments is noted in Table B-XI. In summary, as of 1963 there were 13 hotels, 20 motels and 7 trailer parks in Census

Division 14. Hotel and motel accommodations totaled 569 rooms. In addition, the two largest guest ranches have accommodations of 70 rooms. Other guest ranches include:

a. Rainbow Ranch with cabins, horses, big game guide, and fish guides.

b. Grande Cache Cabins with four cabins and big game guides.

c. Rocky Mountain Ranch with cabins and big game guides.

Table B-XI

TOURIST ACCOMMODATIONS - 1963

Location	Hotels	Rooms	Motels	Rooms	Trailer Park	Unit	Guest Ranches	Accommodation
Evansburg	1	15	1	1	1	13		
Wildwood	1	19	1	8				
Peers	1	6						
Edson	1	36	7	109	1	28		
Hinton	3	117	4	44	3	70		
Whitecourt	2	55	6	99	2	78		
Robb	1	14						
Cynthia	1	14						
Obed			1	7				
Nojak	1	16						
Blue Ridge	1	9						
Circle M	14 miles west of Hinton						1	30
Overlander Lodge	15 miles west of Hinton						1	40
Total	13	301	20	268	7	189	2	70

Source: Alberta Travel Bureau.

WILDLIFE RESOURCES

Hunting

Census Division 14 encompasses an area of 12,235[1/] square miles which contains the following big game populations.

Moose	11,340
Deer	11,804
Elk	7,669
Bighorn	2,175
Goat	550
Caribou	580
Grizzly	444
Black Bear	1,876

In addition to these big game populations, the area supports a good population of native grouse (spruce, ruffed, blue and sharp-tailed) plus ptarmigan in the alpine regions. A light population of Hungarian partridge and pheasants occurs east of Edson in the concentrated farming area.

A valuable fur bearer resource also exists in C. D. 14 which supports population of mink, muskrat, marten, fisher, wolverine, weasel, squirrel, beaver, fox, coyote and wolf.

The current big game harvest amounts to:

Moose	1,500
Deer	900
Elk	680
Bighorn	75
Goat	80
Grizzly	20
Black Bear	40
Caribou	35

or a total of 3,333 animals. The annual harvestable potential is approximately 8,690 animals or nearly three times the present harvest.

Big game hunters currently spend $1,528,000 while hunting in the Edson region. The potential expenditure by big game hunters (based on

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[1/] 1966 boundaries.

current license and other expense rates) is $3,572,380.

The 1963 game bird harvest consisted of:

Sharp-tailed grouse	1,440
Ruffed grouse	4,140
Pheasants	500
Hungarian partridge	1,000
Spruce and blue grouse	720
Waterfowl	10,890

or a total of 18,690 game birds.

This game bird harvest was taken by 1,214 hunters who spent $195,000 in pursuit of their game bird sport. As 1963 represented a low grouse population year we can expect the grouse harvest to be many times greater during the peak years of their cycle.

The 1962-63 fur bearer harvest was 71,158 squirrel, 18,203 muskrat, 4,501 beaver and 9,808 other fur bearers or a total of 103,670 fur bearers. The value of these pelts was $162,720. In addition, fur dealers paid the Provincial Government $7,380 in fur taxes. Fur production in Alberta has been increasing, with a 37.5 per cent increase from 1960 to 1962.

To combine the revenue from all three kinds of wildlife we see the present and the potential annual revenue as follows.

Kind of Wildlife	Current Revenue	Potential Revenue	Current Revenue Per Square Mile	Potential Revenue Per Square Mile
Big game	$1,528,000	$3,572,380	$125	$292
Game birds	195,000	500,000	16	41
Fur bearers	111,000	222,000	9	18
Total Wildlife Revenue	$1,834,000	$4,294,380	$150	$351

These figures show an annual expenditure by hunters of roughly 1.75 million dollars or $141 per square mile for the entire region. The potential expenditure is slightly more than 4.0 million dollars or $333 per square mile. Adding to this expenditure the revenue from the fur bearer industry we see an annual current wildlife revenue of nearly two million dollars with a potential of over four million dollars.

Placing the value of the wildlife resource on a square mile basis we find a current value of $150 plus a potential of $351 per square mile.

Big game and game bird production (except for spruce grouse and caribou) is not only compatible with wise agricultural and forestry management but is actually enhanced by their development. Forestry and agricultural activities convert the large tracts of solid mature forests into desirable patterns of forest openings, with their associated early-succession plants which supply necessary forage, and dense patches of mature forest which provide adequate cover and shelter. A maximum of "edge-effect" (transition between forest and openings) is associated with a maximum moose, deer, elk and grouse population. The only forest management practice which would be detrimental to these wildlife species would be large clear-cut operations which eliminate the patches of mature forest so necessary for shelter. Any extensive logging of mature coniferous forests are determinal to caribou and spruce grouse who depend on climax boreal forest associations for their existence. Fortunately these are not our most valuable game species and some populations of them will continue to exist in the Edson region in spite of forestry or agricultural development.

Agricultural development which retains at least one-quarter of the original shrub and tree cover improves the carrying capacity for deer, elk, (and possibly moose) as well as for ruffed and sharp-tailed grouse. Where at least 75 per cent of the land is placed under cultivation and adquate grain and weed seeds are available during winter months, the area becomes more favorable for pheasants and Hungarian partridge. One agricultural activity which would definitely be harmful to big game populations would be livestock grazing on the limited grassland meadows and open hillsides which are critical winter ranges for elk, deer and to a lesser extent bighorns and moose. As these animals are forced to winter along valley bottoms and semi-open hillsides that comprise less than 25 per cent of the Edson region, any significant removal of forage on these critical ranges by livestock would noticeably reduce big game carrying capacities.

The future outlook for the wildlife resource in the Edson region looks very promising for the following reasons:

a. Current big game populations are higher than at any time on record during the past one hundred years.

b. Forestry and agricultural developments are increasing the carrying capacity of the land for moose, deer, elk, ruffed grouse, sharp-tailed grouse and to a lesser extent pheasants and Hungarian partridge.

c. Hunter access has been greatly improved through a network of roads, cutlines etc. recently and presently being developed by forest, agriculture, petroleum and mining interests. This access is making it possible for hunters to effect a more general harvest of wildlife populations, where former harvests were restricted to narrow strips of land adjacent to the few available roads.

d. Modern mechanized hunting equipment such as jeeps, land-rovers, swamp-buggies, snow toboggans etc. in addition to an increase in the use of horses is spreading hunting pressure more equitably over the entire area, thus making a greater harvest possible.

e. Modern wildlife management programs are providing better information on wildlife populations, reproduction, harvests and winter range conditions, making it possible to assess maximum harvestable surpluses available within each management unit. The implementation of smaller wildlife management units has made it possible to separate areas of different ecological types and correspondingly different types of big game populations. By manipulating seasons according to wildlife populations in respect to range carrying capacities, hunter access, terrain and weather conditions, it is becoming possible to effect maximum harvests for each ecological unit within C. D. 14 without the threat of overharvesting vulnerable populations. The results of this more intensified form of wildlife management are greater possible wildlife harvests and greater possible revenues from this rich resource for the residents of the Edson region.

Residents of Census Division 14 can benefit financially from the wildlife resource in several ways.

a. By providing a complete supply of hunting equipment and lodging, and by advertising their facilities.

b. Motels, service stations etc. can provide additional hunting requirements such as jeeps, snow toboggans etc.

c. Facilities for processing big game carcasses plus cooling and freezing facilities could be enlarged.

d. Farmers and trappers can supplement their farm income by providing lodging and board and also some hunting equipment such as horses, tractors, etc. to hunters wishing to hunt on or adjacent to their farms.

e. Farmers and trappers can make a good income during the hunting season by guiding and outfitting hunters in the vicinity of their residence.

f. Farmers can develop controlled pheasant shooting grounds and charge hunters to shoot the pheasants they have raised.

In conclusion, the wildlife resource is currently worth nearly two million dollars and the potential revenue (based on present values) is over four million dollars. The majority of this revenue can and should find its way into the hands of the residents of the Edson region. It is now up to the businessmen, farmers and trappers to decide whether or not they wish to capitalize on this rich renewable resource and develop it into one of the areas greatest renewable industries.

Fishing

The sports fishery potential in Census Division 14 is unlimited. However, a progressive management scheme must be initiated to keep in line with urban and industrial development. The Fish and Wildlife Division has not studied the economics of the fishery resource, and comprehensive biological inventories have been limited to specific streams and lakes.

The district encompasses the Athabasca River drainage system from the Jasper Park boundary to a line just west of Ft. Assiniboine. The major tributaries to the Athabasca within the district are the Berland and McLeod drainages. The district contains approximately 11,000 square miles of Crown land that has an excellent recreational value. Access to the district is restricted, but rapid industrial use has, and will continue, to open the area. However, there comes with the advent of industry, competition for land use. Uncontrolled industrial development and land use has varied and lasting effect on both esthetic and sports fishery resource.

Water course conditions vary greatly as do the species of fish within the district. High gradient and rubble bottom streams are characteristic of the western quarter of the district. As these water courses flow from the mountainous terrain on to the foothills, there is a substantial decrease in stream gradient. With the decrease in gradient, a meandering water course is developed. Arctic grayling (Thymallus articus), Rocky Mountain whitefish (Prosopium williamsoni), rainbow trout (Salmo gairdneri), brown trout (Salmo trutta), and brook trout (Salvenlinus fontinalis), are characteristic species in the higher gradient water courses, however, arctic grayling are also found in the meandering water courses of the foothills. The silt bottom, sluggish, meandering water courses in the foothills-parkland area have populations of various minnow (Cyprindae) and sucker (Catostomidea) families. Northern pike (Esox luscins) are also found in the meandering water courses. The range of the undesirable species can be retained or increased by man and his activities as improper land husbandry will deteriorate the water course habitat. Habitat is a combination of physical properties (clear, cool water, bank cover, etc.) and game fish require first class habitat for survival.

Sport Fishery Expenditures

The most commercially used criteria for the economic evaluation of the sport fishery is the evaluation of the participant's expenditure. However, in many ways it is far from the true picture of the economic impact of the sport as there are numerous individuals who accompany the participant. The development of separate economic criteria for the group of nonparticipants will not be attempted for this economic evaluation. The largest percentage of the total cost of enjoying sport fishing is for capital items (equipment). The second largest item is for accommodation and supplies. The cost for operating private vehicles represents a large fraction of the total expenditure, which is somewhat less than the second item.

It was estimated that over 50 per cent of all anglers in the prairie provinces hunt or fish within a 100 mile radius of their homes.[1] However, we have a very unique situation in C. D. 14 as it is situated in one of Alberta's top sport fishing districts. The district has excellent access to large metropolitan areas, such as Edmonton with a population of approximately 350,000, and one of the two access roads to Jasper National Park runs directly through the heart of the district. It was estimated from a random sample of anglers utilizing Wildhorse Lake (one of the better trout lakes in the district) that anglers travelled an average distance of 227 miles from their homes to utilize this lake.

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[1] Fishing and Hunting in Canada, 1961. Table 1.

Game questionnaires sent out from the Fish and Wildlife Division showed that approximately 12,000 or 14.43% of the 85,000 hunters who purchased licences in the province hunted within C. D. 14. It will be quite conservative to assume that an equal percentage of those who purchased angling licences also frequented this area. On this basis, approximately 18,000 or 15% of the 120,000 sport fishermen angling in Alberta had frequented this area. The total expenditure for Census Division 14, assuming the above percentage is correct, will be $25,000.00.

Table B-XII
EXPENDITURES OF SPORT FISHERMEN
in Census Division 14 (1965)

Expenditure Items	Number of Spenders	Average Spent in Canada	Total
Licences	18,000	1.11	$ 19,800.00
* Capital Items	18,000	69.21	1,245,780.00
Expendable Items	18,000	37.35	672,300.00
* Vehicle Expenses	18,000	31.73	57,114.00
Total Expenses	18,000	139.40	$2,509,200.00

* Capital item expenditures as stated herein ($69.21) is representative of the average spent in Canada and is not a relaistic figure for C. D. 14. This is because many of the sportsmen fishing in C. D. 14 are from outside the area and would purchase the greatest portion of their equipment at their place of residence e.g., Edmonton residents would purchase most of their capital items in Edmonton. Therefore estimates in Table B-XII are somewhat high. A similar situation exists for Vehicle Expenses.

ECONOMIC APPRAISAL OF RECREATION AND TOURISM

The following is a brief resume of the economics pertaining to the recreation and tourist resource in Census Division 14. Each section is covered in full detail in the text of the main report which discusses references for values presented here.

The summary below attempts to show the patronage of this resource in terms of numbers of people using it, and wherever possible, the revenue derived from each segment of the resource.

Table B-XIII

ECONOMICS OF RECREATION RESOURCE

in Census Division 14

1965

Resource	People Using Resource	Harvests	Annual Expenditure and Revenue	Annual Potential Expenditure and Revenue
*Big Game	12,480	3,333	$1,528,000	3,572,380
Game Birds	1,214	18,690	195,000	500,000
Fur Bearers	358	1,164,731	111,000	222,000
*Sport Fishing	18,000	unknown	2,509,200	5,000,000
Tourism	30,000	aesthetics	562,950	1,100,000
Total	62,052		$4,906,150	$10,394,380

* See note on page 62 for partial explanation. It is reasonable to assume that almost all fishing and hunting equipment including tents, sleeping robes, rifles, ammunition, fishing rods, etc. are purchased at the place of residence. Therefore, since many of the people are from outside C. D. 14, revenue derived from hunting and fishing as reported in Table B-XIII is somewhat high.

Source: See bottom of page 64.

Table B-XIII reveals the tremendous annual value of the fish, wildlife and tourist industry in C. D. 14 and speculates on the resource potential. Irregardless of what potential value is given, one point is very clear, and that is the fact that the recreation and tourist industry is presently in its infancy. The area has so much to offer in the form of hunting, fishing, nature study and scenics that it will undoubtedly witness tremendous future recreational growth. If recent trends in Alberta, which show an increase in tourist trade of 629 per cent in the period from 1946 to 1963 and an increase in big game hunters from 25,000 to 85,000 from 1955 to 1965, are any guide then we can expect areas such as C. D. 14 that are richly endowed in natural resources to benefit immeasurably from this trend. As accommodation, access and other facilities improve, the number of recreational users and the period of use per person will climb substantially.

The table shows a present value for the recreational resource of almost *$5,000,000.00 and a potential of at least *$10,000,000.00. One point that is very important to remember is that this resource not only provides a large annual revenue but is compatible and harmonious with many other industries such as agriculture and forestry. It is a resource that not only will reap greater benefits to the general public in many areas than other renewable and non-renewable resources, but one that can be utilized along with or in addition to most other resources. Though it may not be essential to our daily existence it can add greatly to our standard of living and general well being.

NOTE: Table B-XIII derived from following sources:

1. 1961 Fishing and Hunting in Canada by D. A. Benson of the Canadian Wildlife Service.
2. Provincial Fish and Wildlife Division, Terrace Building, Edmonton.
3. Provincial Parks Division, Natural Resources Building, Edmonton.
4. Alberta Travel Bureau, Edmonton.
5. Provincial Forestry Division, Natural Resources Building, Edmonton.
6. Provincial Department of Highways, Highway Building, Edmonton.

Source: Fish and Wildlife Branch, Alberta Department of Lands and Forests.

* See bottom of pages 62 and 63.

C. HUMAN RESOURCES

SURVEY ON LEADERSHIP

Studies in social organization indicate that in any community there is a small number of individuals who are directing most of the activities of community interest. These people may not necessarily be at the head of an organization but may operate "behind the scenes" and have others under them who participate in most of the visible activity. These people may hold their position by virtue of their occupation (e.g. manager of a major industry) or because of the general respect of the people in the community (e.g. a church leader or long-time resident). They are usually respected in the community and their opinions are often considered the final word in any discussion. This group may not be liked by certain segments of the community but usually nothing of community interest will happen without their sanction. For this reason a survey to determine who these people would be in communities in Census Division 14 was undertaken.

In order to make use of the existing community structure in C. D. 14 it was necessary to divide it into communities. It was decided that the whole of Census Division 14 could not be taken as a community because interests are diverse and the area is large. A community, by most definitions, is that area in which the people receive most of their goods, services and satisfactions. People buy their food and clothing, their gasoline, get their medical and government services, attend church, social, and recreational events and work within the boundaries of the community.[1/] Communities are not organized in a haphazard manner nor do they necessarily follow political boundaries. Communities are organized around activities concerned with the processes of living. They are formed on the basis of the area within which people work, eat, play, worship and learn. The centre of these activities is usually a larger town or village referred to as a community centre. The area that is served by this community centre will be referred to as the "community area". The shape of this community area is influenced by the avenues of transportion such as railways, bus routes and highways. In Western Canada the highway is probably one of the factors of greatest influence.

1/ Lowry Nelson Et Al - Community Structure and Change, New York, the Macmillan Co. 1960, p. 11.

People will travel further on a paved highway than on a gravel road in order to reach a town. After an examination of trading areas, location of medical, governmental, educational and other services and location of main roads it was decided that Census Division 14 should be divided into five areas. The boundaries for these areas were left tentative but the five areas had as their centres, Hinton, Edson, Whitecourt, Evansburg-Wildwood, and Mayerthorpe. The power structure in each of these five areas was to be determined by a reputational method.

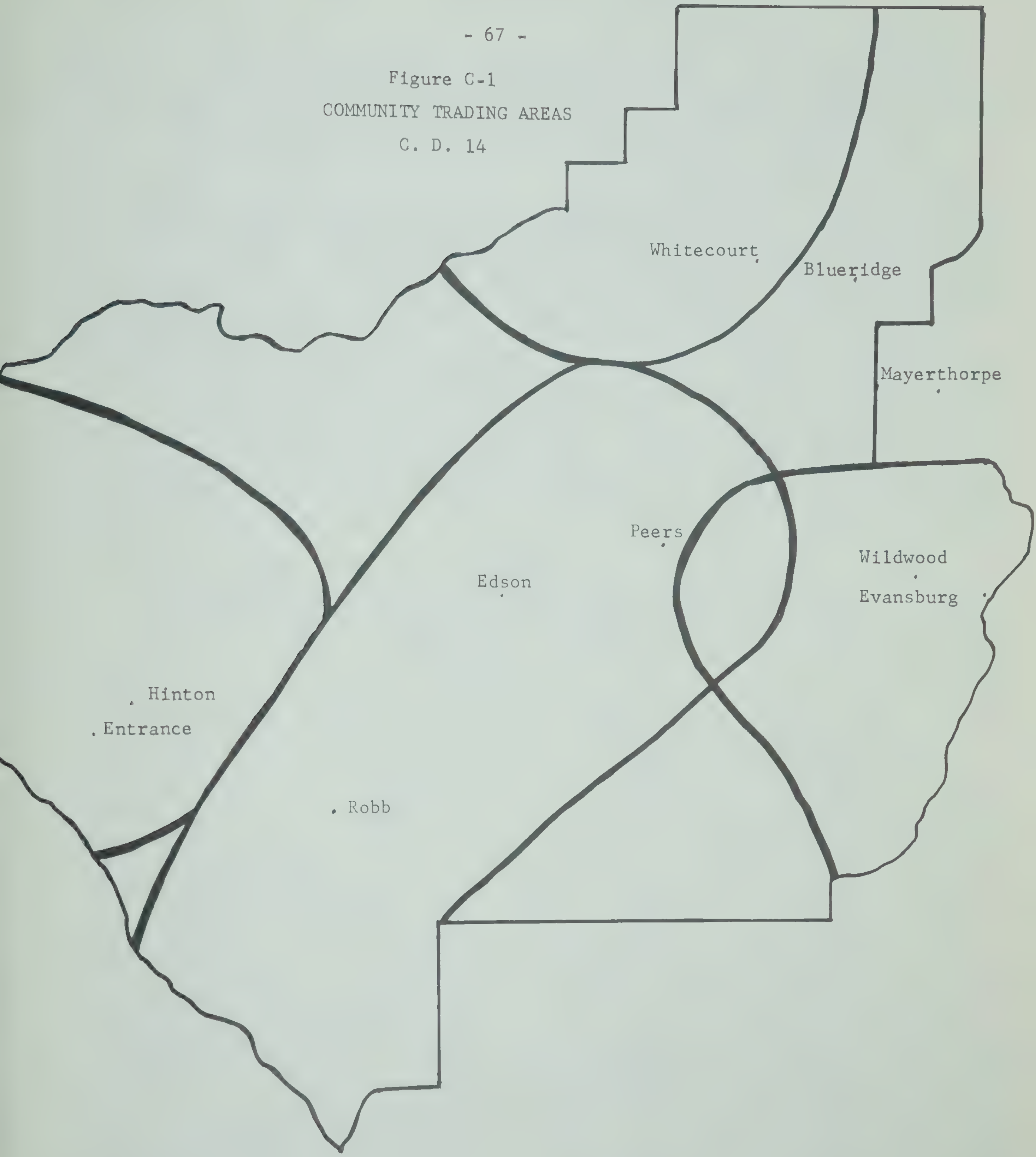
Several people in each of the community areas were chosen as initial contacts. These people were in positions which would provide them with ample opportunity to watch the functioning of the community. Bankers, school superintendants, larger businessmen, presidents of Chamber of Commerce groups, town managers, and newspaper editors are examples of the type of people chosen. These people were interviewed and the progress of the program to date was explained. They were asked to suggest modifications to the tentative community boundaries and after an explanation of the qualifications of the people needed they were asked to suggest ten persons who would be community "opinion" leaders. The frequency of the appearance of each name was tabulated and those who had been mentioned a large number of times were then given the same interview. Names which appeared frequently were assumed to be the community leaders.

It was found that the tentative community boundaries were reasonably accurate although a few modifications were made. (See attached map.) It was also found that in each community a few names appeared on almost every list. These were assumed to be the community leaders and were invited to the initial advisory council meetings.

Figure C-1

COMMUNITY TRADING AREAS

C. D. 14



POPULATION PROJECTIONS

Future population is usually determined by using the formula:

Future population = Present population plus Natural Increase (surplus of births over deaths) plus in-migration minus out-migration.

When total world population projections are made the only element of the formula which must be considered is the natural increase. There is obviously no migration component. When making projections for the whole of Canada the most important component is still natural increase although some consideration must be given to the migration components. When projections must be made for a small area, such as C. D. 14 the migration components become very important. This adds greatly to the difficulty of making population projections. The natural increase can be calculated relatively easily because such things as birth rates and death rates have been studied a great deal and can be predicted with a fair degree of accuracy. The factors affecting migration however are much more numerous, varied, and have not been studied to the same degree. Research that has been done in this area, however seems to indicate that one of the most important factors affecting the rate of migration is economic opportunity.[1] To most people this means the availability of jobs for which they are qualified. For this reason the population projections for C. D. 14 will be based upon forseeable demands for labour. Projections of the demands for labour by industry in 1975 have been recorded in the section on Labour Force as well as figures showing the proportion of the total population that is in the labour force. The total projected population can be obtained through the use of these two figures. It will be assumed that the labour force will be 36% of the total population which is a figure between the 1961 Alberta and Canadian averages. (See Table C-21.) Table C-I shows the projected labour force by industry and the projected population using the above assumptions. Table C-II shows the relationship between total labour force and total population for 1961 and 1975 for C. D. 14. Table C-III gives the projected distribution of the population in 1975. Edson is seen as maintaining its position as the largest town in C. D. 14 due to its advantageous

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1/ D. J. Bogue - "Internal Migration," in P. M. Hauser and O. D. Duncan The Study of Population, Chicago: The University of Chicago Press, 1949.

location in terms of transportation routes and distance from other major centres. The economic base of this town will probably continue to be the service industries and it will be in the centre of a large tourist development. Whitecourt will grow and probably become the second major centre in the census division. This is due to the proposed pulp mill development and also the tourist and recreational potential of the area. Hinton will grow but it is not forseen that this growth will be as rapid as that of Whitecourt because of the lack of a varied economic base. This may change due to the resource railroad from Solomon to Smoky River. The farming population will decline but the people living in Rural areas (including the small villages) will increase as the industries supporting agriculture develop and also industries in the three major towns grow. The impact on the population of the Smoky River development cannot be forseen at the moment but it may be that the population projection to 1975 will be conservative.

Table C-I

PROJECTED LABOUR FORCE BY INDUSTRY AND PROJECTED POPULATION
OF CENSUS DIVISION 14
to 1975

	Labour Force	Population
All Industry	12,450	34,500
Agriculture	750	2,083
Forestry	1,400	3,888
Fishing and Trapping	10	28
Mines, Quarries, Gas & Oil	500	1,389
Manufacturing	1,800	5,000
Construction	1,000	2,777
Transport, Communication & Other Utilities	1,500	4,167
Trade	2,000	5,556
Finance, Insurance & Real Estate	140	389
Community Business and Personal Services	3,000	8,333
Public Administration & Personal Service	350	972

Source: Census of Canada Bulletin 3.1-8.

Table C-II

RELATIONSHIP OF LABOUR FORCE TO POPULATION FOR CENSUS DIVISION 14

1961 and 1975

YEAR	POPULATION	LABOUR FORCE	
		Number	% Of Population
1961	19,282	6,716	34.43
1975	34,500	12,450	36.00

Table C-III

DISTRIBUTION OF POPULATION OF C. D. 14

1951, 1961, 1975

	1951	1961	1975
Edson	1,956	3,198	9,000
Hinton	203	3,529	6,500
Whitecourt	397	1,054	6,500
Evansburg	300	452	900
Wildwood	405	479	600
Rural Farm	5,021	4,223	3,000
Rural - Non-Farm[1/]	6,161	6,347	8,000
Total for C. D. 14	14,443	19,282	34,500

[1/] Includes all persons living in C. D. 14 but not included in above classifications, e.g. includes persons living in Peers or on small subdivisions outside of the towns listed.

Source: Census of Canada, 1951 and 1961. Projections from Rural Development Section.

Figure C-2

POPULATION DENSITY OF CENSUS DIVISION 14

1961

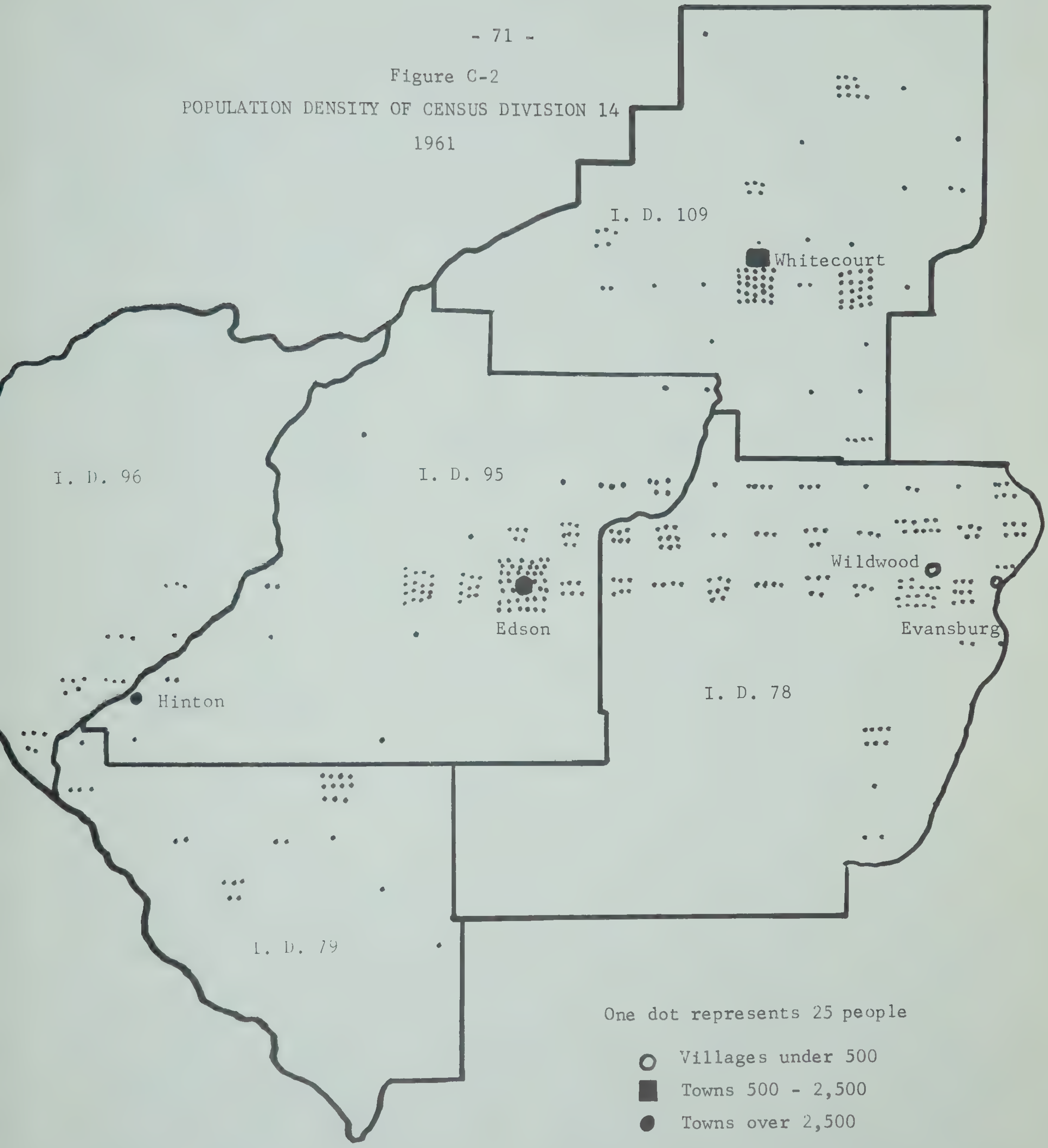


Table C-IV

LABOUR FORCE BY INDUSTRY FOR C. D. 14

1961 & 1975

	1961	1975[2]
All Industry[1]	6,716	12,450
Agriculture	955	750
Forestry	858	1,400
Fishing & Trapping	11	10
Mines & Quarries	451	500
Manufacturing	861	1,800
Construction	621	1,000
Transport, Communication & Other Utilities	796	1,500
Trade	721	2,000
Finance, Insurance & Real Estate	77	140
Community, Business & Personal Services	948	3,000
Public Administration	242	350

1/ Includes persons not reporting industry.

2/ For population projections, labour force is considered to be 36% of the total population.

Source: 1961 Census. Projections by Rural Development Section.

POPULATION ANALYSIS

The area of Census Division 14, is 11,760.3 square miles, a large proportion of it being very sparsely populated. The average population density is 1.64 persons per square mile. Improvement District 95 is the most heavily populated with 4.10 persons per square mile, while I. D. 96 has the lowest population density with 0.14 persons per square mile. Table C-I gives the breakdown for each I. D. and the total for the Census Division. I. D. 95 has two of the three major urban centres in the Census Division and that will account for the relatively high population density. The population of I. D. 78 is entirely rural (as classified by the census) and still the I. D. is the second in population density in the Census

Division. A large proportion of this population is farmers.

Table C-V
POPULATION DENSITY
1961

	Number Of Acres[1]	Number Of Square Miles	Population[2]	Population Density
I. D. 78	1,646,244	2,572.3	4,415	1.72
I. D. 79	921,600	1,440.0	667	0.46
I. D. 95	1,618,560	2,529.0	10,365	4.10
I. D. 96	1,946,880	3,042.0	430	0.14
I. D. 109	1,393,280	2,177.0	3,405	1.56
Total	7,526,564	11,760.3	19,282	1.64

1/ Taken from Municipal Affairs Annual Reports

2/ Census of Canada 1961.

The other major urban centre is in I. D. 109 which is third in population density. Figure C-2 is a map indicating population densities by townships.

The Census Division follows a trend similar to that of other areas in the province and the country as a whole. This is the trend from a rural-agricultural way of life to an urban-industrial way of life. There are however several significant differences in C. D. 14. The rural sector of the Census Division has been engaged in lumbering in addition to agriculture and the change to an urban way of life has been much more drastic than many other areas. In 1951 only 13.54% of the population lived in urban centres while in 1961, 40.35% lived in such centres. This compares with a change from 47.95% to 63.93% for Alberta. (See section on Rural Urban Migration for more information.) Much of this shift to urban living can be attributed to the coming of the pulp mill to Hinton and the gas and oil industry to Whitecourt. The population of the area has grown continually since 1911 when it was first recorded in a separate area in the census. In 1911 the population of the Census Division was 3,516 and by

1961 this had grown to 19,282. (See Table C-VI and figure C-3.) This is more than a five-fold increase. The population of Alberta for the same period showed slightly less than a four-fold increase. During this time, however, several areas of Census Division 14 had experienced some violent population fluctuations. I. D. 79, the coal mining area, had a population of 3,992 persons in 1951 and by 1961 this had dropped to 667, due to the closing of the coal mines. I. D. 96 had a growth and decline from 1911 to 1931 with the peak population reached in 1921. This was probably also due to the coal mines at Brule. Coal probably also played a part in the population decline in I. D. 78 from 1941 to 1951.

Table C-VI
POPULATION OF CENSUS DIVISION 14
1901 - 1961

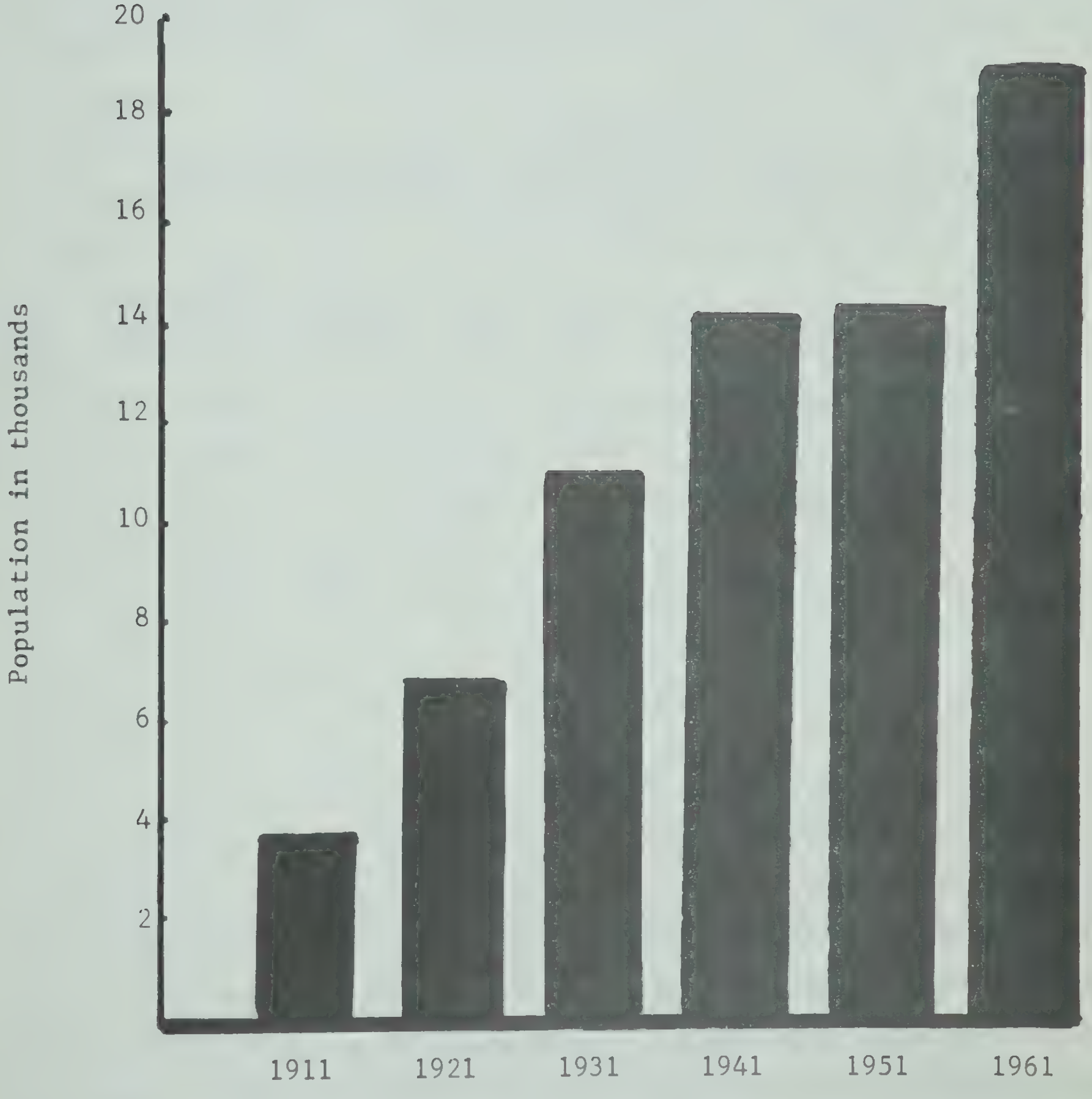
	1911	1921	1931	1941	1951	1956	1961
I. D. 78	1,086	1,594	3,177	4,946	3,724	3,444	3,484
I. D. 79	375	1,446	3,293	3,879	3,992	2,234	667
I. D. 95	1,417	1,222	1,860	2,560	2,561	4,696	3,638
I. D. 96	56	543	121	85	299	314	430
I. D. 109	85	734	919	1,312	1,506	1,693	2,351
Edson	497	1,138	1,547	1,499	1,956	2,560	3,198
Hinton	--	--	--	--	--	--	3,529
Whitecourt	--	--	--	--	--	--	1,054
Evansburg	--	--	--	--	--	358	452
Wildwood	--	--	--	--	405	547	479
C. D. 14	3,516	6,677	10,917	14,281	14,443	15,846	19,282

Source: Census of Canada 1961, Bulletin 1.1-10.

Figure C-3

POPULATION C. D. 14

1911 - 1961



The history of I. D. 109 shows a steady and fairly rapid population increase since 1911 and shows promise in the future for a steep rise due to a proposed pulp mill. Whitecourt is the major town in I. D. 109 and it has shown rapid growth over the past few years. The original attraction for people in Whitecourt was the lumbering industry but in the late 1950's gas and oil were discovered nearby. The 1961 census show the population as 1,054 persons but with continued growth the town had reached 2,325 by 1963 (see table C-VII). If rumors of the size of the proposed pulp mill are accurate then Whitecourt can look forward to a continuing period of rapid growth.

Table C-VII

POPULATION OF TOWNS AND VILLAGES IN CENSUS DIVISION 14

1964

	1964	1963	1962	1961	1960	1959	1958	1957	1956	1951
Edson	3,740	3,643	3,453	3,339	3,248	3,227	3,096	3,100	2,560	1,956
Hinton	3,796	3,529	3,529	3,452	3,019	3,190	3,394	3,394	943	203
Whitecourt	2,325	2,325	2,261	1,500	986	986	--	--	687	397
Evansburg	447	447	447	425	435	409	391	391	358	--
Wildwood	430	430	479	455	455	453	485	485	547	405

Source: Alberta Department of Municipal Affairs Annual Report.

Improvement District 95, which contains the towns of Edson and Hinton has shown an almost continuous growth in population. This is also true of the town of Edson. Hinton was a relatively small centre until the establishment of the pulp mill. During construction of the mill, there was a period of rapid growth, a slight decline at the close of this period followed by a slight increase and then a period of stability (see Table VII). Edson began as a railway divisional point and developed as a service town for the railway employees, lumber operators and the farmers to the east. The town is still a service town serving the pulp area, and the gas and oil interests.

AGE AND SEX COMPOSITION

The age and sex composition of an area can give an indication of population trends within the area. If the age group 15 to 30 is small then the population can be expected to level off and decline in the next 10 to 15 years because people in the child-bearing age have left the area. A population with a high birth rate and a high death rate will have the largest category as the youngest and each category getting smaller as age increases. This can be plotted as a graph which will take the shape of a pyramid. Tables C-2 to C-5 give the age - sex composition for Alberta and C. D. 14 and figures C-4 and C-5 are population pyramids for C. D. 14 for 1956 and 1961. The 1961 figure shows a high birth rate but the 15 to 19 years of age category is extremely small and the 20 to 24 age category is also relatively small. This suggests that many of the young people are leaving the area to work elsewhere. There is an increase in the proportion of females in the 20 to 30 age group which may mean that many of the in-migrants are young married families which would account for the increase in the 10 to 14 age groups and may also account for the deficit in the 15 to 24 age group.

Another factor which indicates that the character of the population of C. D. 14 is changing is the sex ratio (number of males per 100 females, see Table C-VIII). Each year there has been a much larger number of males than females in C. D. 14 and the ratios are much higher than the Alberta averages. A high sex ratio is a characteristic of a rural or a "frontier" area. As Alberta becomes more urbanized the sex ratio decreases as seen in table C-VIII. The sex ratio in C. D. 14 rose from 1951 to 1956 and dropped again by 1961 to a level below the 1951 figure. The rise in 1956 can probably be attributed to the influx of construction workers when the Hinton pulp mill was under construction the egress of these same workers and establishment of the permanent employees with their wives and families. The sex ratio will probably rise again when construction begins on the proposed Whitecourt pulp mill and then fall as the permanent workers move in. The decline in the sex ratio can be expected to continue as the urban centres become larger and more industrialized so that in the future

Figure C-4 - POPULATION BY SEX FOR CENSUS DIVISION 14

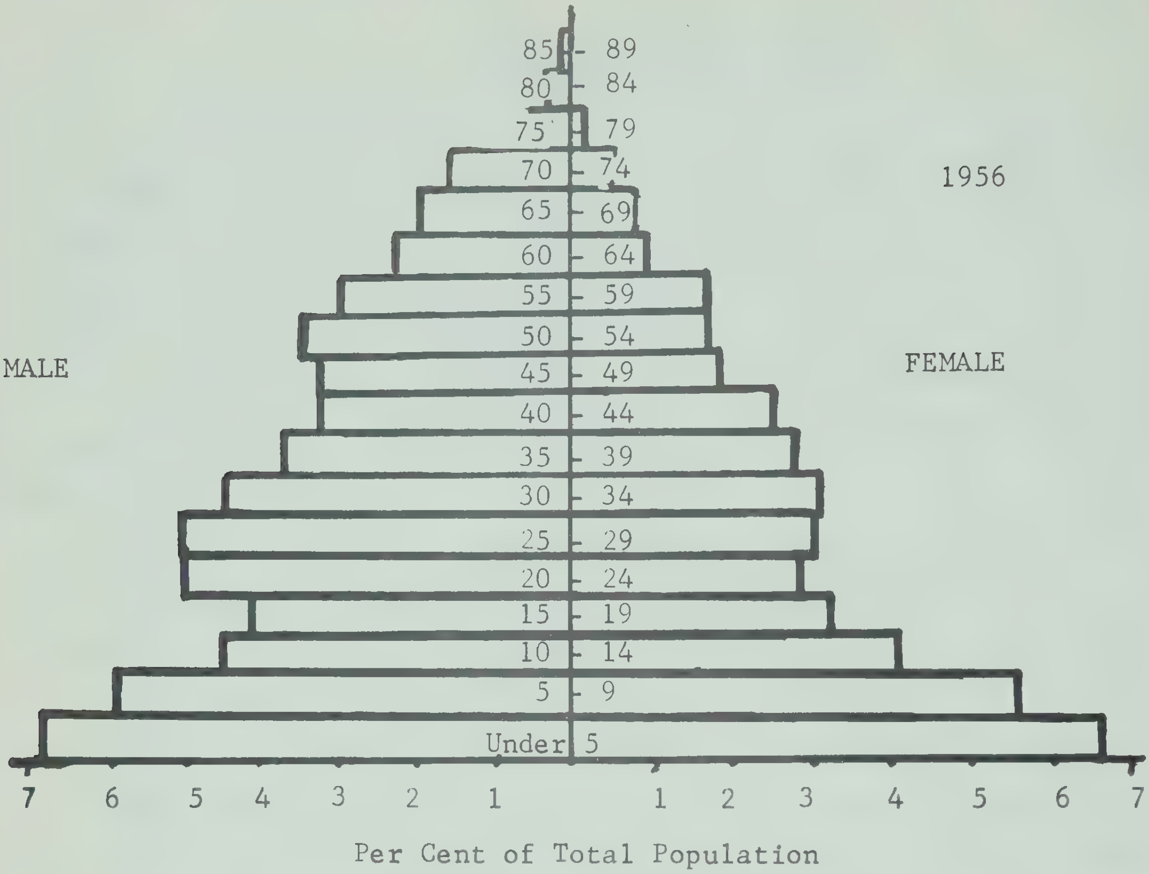
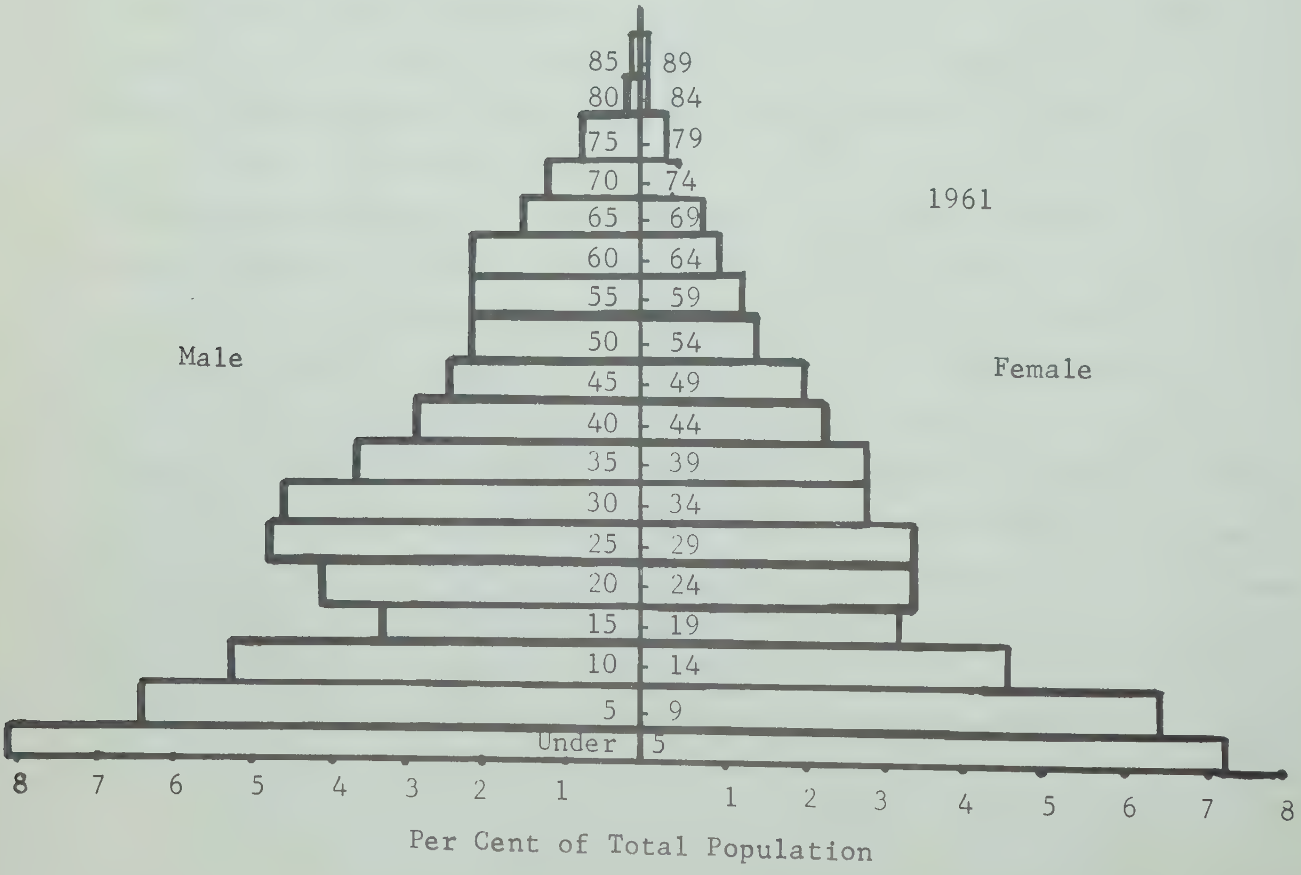


Figure C-5



the sex ratio in C. D. 14 will more closely approximate that of the province.

Table C-VIII

SEX RATIO

MALES TO 100 FEMALES

	ALBERTA			CENSUS DIVISION 14		
YEAR	Male	Female	Ratio	Male	Female	Ratio
1951	492,192	447,309	110	8,107	6,336	128
1956	585,921	537,195	109	9,093	6,753	135
1961	689,383	642,561	107	10,683	8,599	124

Source: Census of Canada 1961, Bulletin 1.2-1, Table 16.

FERTILITY AND MORTALITY

Table C-IX shows the birth and death rates for the province and Census Division 14 for 1957 and 1961.[1/] The birth rate for Alberta in 1957 was 30.79 per one thousand population and this had decreased to 29.22 per thousand in 1961. Alberta's birth rate reached a peak of 32.3 per thousand in 1954 and has been declining since then. The birth rate in C. D. 14 shows an opposite trend to that of the province since 1957. In 1957 the birth rate for Census Division 14 was 30.02 per thousand while in 1961 this had risen to 35.33 per thousand. A large part of this reverse trend in C. D. 14 can be attributed to the construction of the pulp mill in Hinton. During the construction phase of the mill in 1956 to 1957 there is a large influx of male labour and a lack of young women of child-bearing age.

1/ The year of 1957 was used instead of the census year 1956 since the boundaries of the census divisions were changed in that year and the Vital Statistics branch did not adopt this change until a year later. For this reason the rates for 1957 are approximations. The number of births and deaths are accurate but the population figures are estimates as noted in the footnotes to Table C-IX.

Table C-IX

BIRTH AND DEATH RATES FOR ALBERTA AND C. D. 14

1957 and 1961

	POPULATION	BIRTHS[d]	BIRTH RATE (Births Per 1,000 Population)	DEATHS[d]	DEATH RATE (Deaths Per 1,000 Population)
1957					
Alberta	1,160,000[a]	35,719	30.79	8,255	7.12
C. D. 14	15,846[b]	593	30.02	139	7.04
1961					
Alberta	1,331,944[c]	38,914	29.22	8,863	6.65
C. D. 14	19,282[c]	685	35.33	122	6.32

Source: a/ Dominion Bureau of Statistics Population Estimate taken from the Department of Public Health Annual Report 1957.

b/ Municipal Affairs Population Estimate taken from the Department of Municipal Affairs Annual Report 1957.

c/ Census of Canada 1961.

d/ Department of Public Health Annual Reports for 1957 and 1961.

When the mill becomes established the more permanent workers with families come in. Table C-VIII shows this change in sex ratio. If there are relatively fewer females of child-bearing age the birth rate can be expected to fall. This is the case with new construction jobs or any area where the male population far outnumbers the female population. If a pulp mill is constructed in Whitecourt a similar pattern can be expected to recur in the birth rates of the Census Division.

The death rate in C. D. 14 is dropping in much the same way as the provincial average although the rates for the Census Division are slightly lower than for the province.

ETHNIC AND RELIGIOUS CHARACTERISTICS

The ethnic and religious characteristics of the population of Alberta and Census Division 14 are shown in table C-8 to C-14. Census Division 14 has a higher concentration of French, Finnish, German, Netherlands, Polish, Scandinavian, other European, other Asiatics, and Negroes than does the province of Alberta. There is also a higher percentage of Greek Orthodox, Jehovah's Witness, Lutheran, Pentecostal, Roman Catholic and United Church membership than in the province.

POPULATION - EFFECTS OF RURAL - URBAN MIGRATION

Table C-16 and Figure C-6 and C-7 shows the change in population composition in terms of rural-farm, rural non-farm and urban. Urban in this case refers to persons living in centres of 1,000 population or more. Rural non-farm refers to persons living in centres of less than 1,000 population but not on farms. Rural-farm refers to persons living on farms. From 1951 to 1961 the rural farm population decreased from 36.12% of the total population of Alberta to 21.70%. In Census Division 14 the change over the same period was from 34.76% to 21.90%. With the development of Hinton and Whitecourt since 1961 this proportion is likely to be even less at present. This change represents a loss in absolute numbers of 798 persons in the rural-farm population. This is a change of -15.9% for the decade. The comparable figure for Alberta is -14.8%. The rural non-farm population in Census Division 14 has decreased slightly from 1951 to 1961 except for an increase in 1956. The decrease since 1956 is due to the classification of Hinton as an urban centre. In Alberta the rural non-farm segment of the population has increased numerically but decreased as a proportion of the total population. In Census Division 14 there was a decrease both in numbers and as a proportion of the total population. The urban segment of the population has taken on an increasing proportion of the total population. Between 1956 and 1961 the urban population of C. D. 14 changed from 2,560 to 7,781 persons, or an increase of 203.95%.

The increase over the same period for Alberta was 33.93%. Much of this increase was due to immigration from outside of Census Division 14 but some of this increase came from the rural sectors. (1,785 persons.)

Several studies have been done to determine if rural-urban migration is selective in any way. The people who migrate tend to be younger and this leaves the farm owners and operators in an older age category. In Alberta in 1961 (Table C-19) 29.5% of the farm operators were over 55 years and in Census Division 14, 30.9% were in this category. In the sample taken in 1964, 34% of the farm operators were over 55 years of age. Older farmers are less likely to undertake drastic reorganization of existing resources and this may inhibit adjustment of agricultural resources.1/ However in the sample of 1964 there were four persons between the ages of 20 and 35 who were living on farms but who were not classed as operators. These people were either living on the farm but working elsewhere or working on the farm assisting the operator. Also there were six in this age category who were not living on the farm but were still living and working in Census Division 14. All these people are potential operators when present operators retire and may influence the decisions of the present operators in connection with making changes. There are indications that adjustments in agriculture are more rapid where growth in non-farm employment is local and the people leaving the farm do not have to move long distances.1/ Census Division 14 is in an ideal position in this regard because development of pulp manufacturing and oil is taking place close to the local area.

Many studies have been made on the adjustment of rural migrants to the urban society and following are some of the findings:

1. Many of the rural migrants lack the educational training or social background necessary to make them other than marginal members of the non-farm society.
2. Rural migrants tend to move to lower standard housing areas and upgrade their housing less through moving,than do other migrants.1/

1/ J. Friedman and W. Alonso, Regional Development and Planning, The M. I. T. Press, Cambridge, Mass., 1964. Pages 482, 483 , 484.

Figure C-6

PER CENT POPULATION BY RURAL FARM, RURAL NON-FARM AND URBAN FOR ALBERTA AND C. D. 14

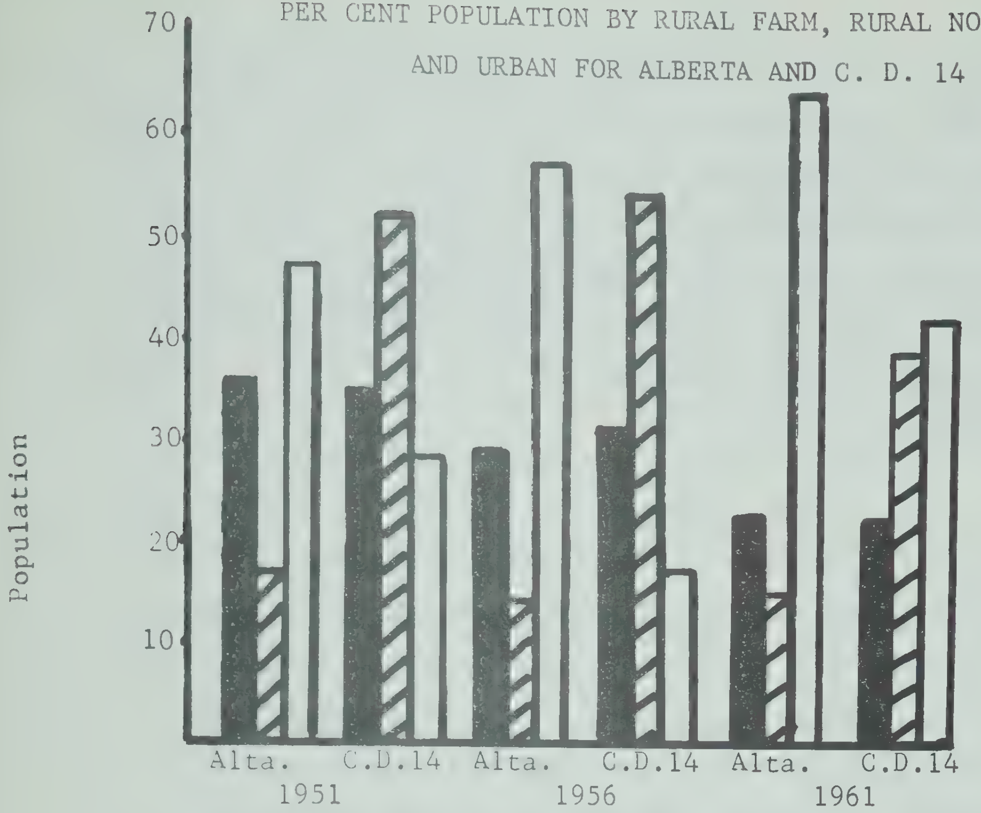
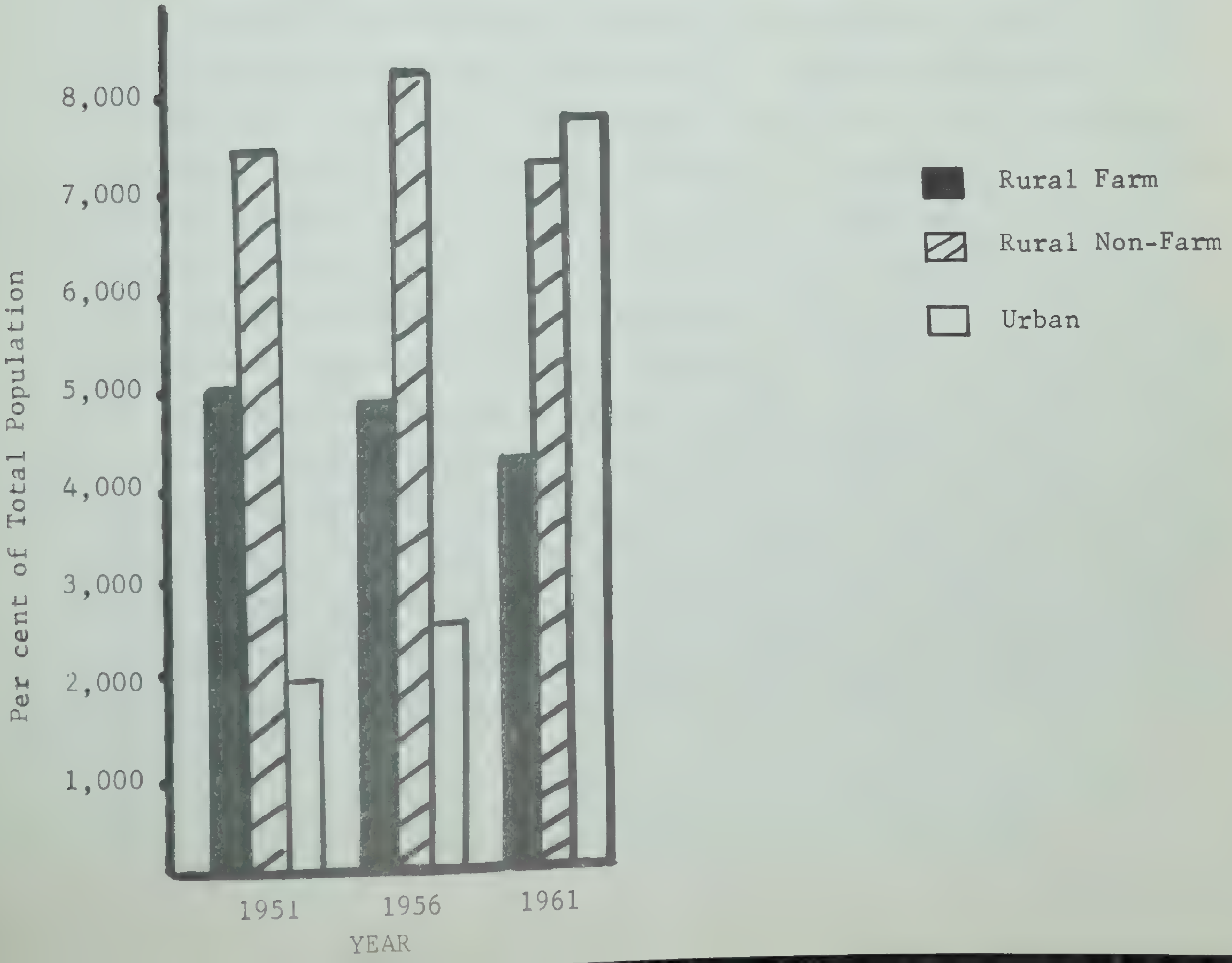


Figure C-7

POPULATION BY RURAL FARM, RURAL NON-FARM, AND URBAN IN CENSUS DIVISION 14



In Census Division 14 urban development is taking place close to the farming area. This allows people to make the transition from the farm in stages. With the prospects of a pulp mill going into Whitecourt an investigation into the possibility of holding training courses that would enable rural people in the area to take advantage of forth coming employment opportunities might be worthwhile. Those remaining on the farm should be encouraged to take advantage of the D. A. services to improve farming methods.

LABOUR FORCE

The presence of a well trained labour force is of significance in the development of any area and therefore is of concern to those involved in planning a development program. The available labour force is tied closely to the population of an area and if the population is not sufficient to supply the needed labour force then either development is restricted or there is a migration to the area from some other area. Table C-21 outlines the relationship of the labour force to the population. The labour force in the 1961 Census is defined as all persons, 15 years of age and over, who were reported as having a job of any kind, either part-time or full-time, or were reported as looking for work, during the week prior to enumeration. Table C-21 shows the relationship of this group to the total population and to the population fifteen years of age and over from 1911 to 1961. It can be seen that the proportion of persons in the labour force has been declining steadily since 1911 in both Alberta and the whole of Canada. This trend will probably continue due to the increasing length of time spent in obtaining an education and also the increasing number of retired retail persons. Table C-21 also shows that although Alberta follows a similar trend to Canada, the proportion of the population in the labour force in Alberta is higher in every year. Table C-22 shows a similar, but a more detailed, breakdown of the employment status for 1961 for C. D. 14 and its urban centres as well as Alberta and Canada. The average proportion in the labour force is lower for C. D. 14 than for Alberta but it is still higher than the Canadian average. The centres of Hinton and Whitecourt have a much higher proportion of the population in the labour force than the Census Division average. This may be due to the young age of these towns and will probably decline to a figure more closely approximating the Census Division average in the next ten years.

The 1961 Census of Canada also gives a breakdown of the labour force by occupation division. The occupation divisions are comprised of individual classes based mainly on the kind of process performed and the kind of material worked upon regardless of the nature of the business of the establishment in which it is carried on. For example, all carpenters, whether employed in construction, manufacturing or other industries are classified under the "Craftsman, Production, and Related Workers" division of occupations in the Census. Table C-XI gives this breakdown for Alberta, C. D. 14 and the major towns of C. D. 14 in 1961. Many of the proportions found in each occupation division are similar to those that could be expected in other parts of the province but there are some striking differences in some centres and some occupation divisions. One noticeable difference is in the Professional and Technical division and it is noted that Whitecourt has an extremely low proportion of its labour force in this category. Again this may be attributed to the short time in which there has been an extremely rapid growth in other occupations and this division has not had an opportunity to "catch up". It can be noted that the proportion of the labour force engaged in occupations in the sales division in the major towns of C. D. 14 very closely approximates the provincial average but the average for the Census Division is far below the provincial average. Whitecourt is also unique in that a very high proportion of its labour force is employed in the Service and Recreation, and Transportation and Communication divisions. Tables C-23 and C-24 show the distribution of labour force by occupation division for rural and urban areas. Table C-25 shows a similar breakdown for 1951. It is worth noting again that the boundaries of the Census Division changed from 1951 to 1961 so the figures should be used and compared with this fact in mind. In 1951 the Census Division included what is now I. D. 77 and part of the county of Lac St. Anne.

Table C-XII gives an analysis of the labour force by industry for Alberta and Census Division 14 for 1951 and 1961 and a projection to 1975 for C. D. 14. In comparing the figures it must be remembered that the boundaries of the Census Divisions changed but it is not felt that the direction of the trends has been distorted but only the magnitude in some cases. The industry categories differ from the occupation division in that for the industry categories the type of occupation is not considered but only the type of business. For example, if a carpenter and a bookkeeper both worked for a business engaged in mining they would fall under the "Mines, Quarries and Oil Wells" category. Figure C-8 and C-9 show graphically the changes between 1951 and 1961 in the proportion of the labour force working in various industries. As can be seen the proportion of the labour force engaged in agriculture decreased and the proportions in all other industries increased. This is a trend that is also evident in Alberta, and can be expected to continue in the future as indicated in figure C-10, which is a graph of the proportions projected to 1975.

A much clearer picture of the direction and magnitude of the trends can be obtained by combining several of the above industry categories into one category and in this way reducing the number of categories to three. These three categories are to be Agriculture, which includes farmers and farm workers, hunters, fishermen and forestry workers; Industry, comprising manufacturing, construction, mining and quarrying and utilities producing gas, water or generating electricity; and Services, which comprises trade, finance, transportation, storage and communication, public administration and personal and professional services. Table C-26 gives a breakdown of the numbers and proportions of the labour force in each of these three categories for Alberta from 1911 to 1961. Figures C-11 and C-12 present this information in graphic form. It can readily be seen that although the number in the labour force engaged in industry increased from 1921 to 1961 that the proportion in this category remained relatively stable. The number engaged in agriculture increased until 1941 when this number began to decline and continued to decline. The proportion of the labour force working in agriculture has been declining since 1921 but the rate of the decline increased sharply after 1941. The number and proportion of the labour force engaged in the service industries has steadily increased since 1911 but the rate of increase has been increasing since 1941. Technology has made it possible for fewer workers in agriculture and industry to produce more. This releases more workers for jobs in the service industries. This trend can be expected to continue and to be evident in C. D. 14 as well as Alberta as a whole.

Table C-X

LABOUR FORCE 15 YEARS OF AGE AND OVER BY OCCUPATION AND SEX FOR CENSUS DIVISION 14, RURAL AND URBAN[1/]

OCCUPATION DIVISION	RURAL				URBAN				CENSUS DIVISION 14			
	M	F	Total	%	M	F	Total	%	M	F	Total	%
Managerial	184	25	209	5.62	308	32	340	12.03	492	57	549	8.39
Professional & Technical	98	67	165	4.45	157	125	282	9.97	255	192	447	6.84
Clerical	53	50	103	2.77	109	167	276	9.77	162	217	379	5.79
Sales	50	32	82	2.21	84	71	155	5.48	134	103	237	3.62
Service & Recreation	116	130	246	6.63	145	276	421	14.89	261	406	667	10.20
Transportation & Communication	244	15	259	6.97	202	19	221	7.81	446	34	480	7.34
Farmers & Farm Workers	866	91	957	25.77	22	1	23	0.81	888	92	980	14.98
Loggers, Fishermen, Trappers, & Hunters	513	2	515	13.87	164	-	164	5.79	677	2	679	10.38
Miners & Related Workers	194	-	194	5.23	31	-	31	1.09	225	-	225	3.45
Craftsmen, Production & Related Workers	679	10	689	18.56	713	9	722	25.54	1,392	19	1,411	21.57
Labourers	293	1	294	7.92	192	1	193	6.82	485	2	487	7.44
Total	3,290	423	3,713	100.00	2,127	701	2,828	100.00	5,417	1,124	6,541	100.00

[1/] Urban - All cities, towns and villages 1,000 population and over.

Source: Census of Canada 1961, Bulletin 3.1-8.

Table C-XI

LABOUR FORCE[1] 15 YEARS OF AGE AND OVER BY OCCUPATION FOR ALBERTA, CENSUS DIVISION 14 AND TOWNS 1,000 POPULATION AND OVER - 1961

		Alberta	C. D. 14	Edson	Hinton	Whitecourt
All occupations[2]	#	489,511	6,716	1,174	1,317	432
Managerial	#	41,691	549	141	139	60
	%	8.5	8.2	12.0	10.6	13.9
Professional & Technical	#	46,579	447	129	136	17
	%	9.5	6.7	11.0	10.3	3.9
Clerical	#	55,317	379	107	141	28
	%	11.3	5.6	9.1	10.7	6.5
Sales	#	31,629	237	70	55	30
	%	6.5	3.5	6.0	4.2	6.9
Service & Recreation	#	59,055	667	164	181	76
	%	12.1	9.9	14.0	13.7	17.6
Transportation & Communication	#	28,261	480	101	74	46
	%	5.8	7.1	8.6	5.6	10.7
Farmers & Farm Workers	#	104,162	980	7	9	7
	%	21.3	14.6	0.6	0.7	1.6
Loggers, Fishermen, Hunters, Trappers	#	3,009	679	42	102	20
	%	0.6	10.1	3.6	7.7	4.6
Miners, Quarrymen & Related Workers	#	5,291	225	14	2	15
	%	1.1	3.4	1.2	0.2	3.5
Craftsmen, Production & Related Workers	#	83,449	1,411	274	358	90
	%	17.0	21.0	23.3	27.2	20.8
Labourers[3]	#	19,615	487	87	74	32
	%	4.0	7.3	7.4	5.6	7.4
Other	#	11,453	175	38	46	11
	%	2.3	2.6	3.2	3.5	2.6

Source: Census of Canada 1961, Bulletin 3.1-8, Table 14, 15.

[1] Excludes persons seeking work who have never been employed.

[2] Includes persons not reporting occupation.

[3] Labourers includes workers in unskilled occupations except fishing, farming, logging, mining.

Table C-XII

LABOUR FORCE[1] BY INDUSTRY FOR ALBERTA AND C. D. 14 1951, 1961, 1975.

	1951		1961		1975
	Alberta	C. D. 14	Alberta	C. D. 14	C. D. 14
All Industry[2]	353,898	6,796	489,511	6,716	12,450
Agriculture	103,573	2,741 (1,500*)	103,573	955	750
Forestry	1,712	448	2,784	858	1,400
Fishing & Trapping	976	57	839	11	10
Mines & Quaries	15,723	916	17,350	451	500
Manufacturing	38,039	603	42,217	861	1,800
Construction	25,662	257	37,360	621	1,000
Transport Communication and other Utilities	30,310	652	47,435	796	1,500
Trade	46,771	362	80,096	721	2,000
Finance, Insurance Real Estate	7,957	36	14,695	77	140
Community Business and Personal Service[3]	71,789	679	93,443	948	3,000
Public Administration and Defence	-	-	38,627	242	350

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[1] Exludes persons seeking work who have never been employed.
[2] Includes persons not reporting industry.
[3] 1951 figures includes community, government, business and recreation service groups.

1951 labour force includes all persons 14 and over.
1961 labour force includes all persons 15 and over and Indians on reserves.

* The boundaries of the Census Division changed between 1951 and 1961 and this figure is the approximate number in this category if the boundaries in 1951 were identical to 1961.

Source: Census of Canada 1951, Volume IV, Labour Force, Table 18,
Census of Canada 1961, Labour Force (industries), Bulletin 3.2

Figure C-8

PERCENTAGE LABOUR FORCE BY INDUSTRY

for C. D. 14

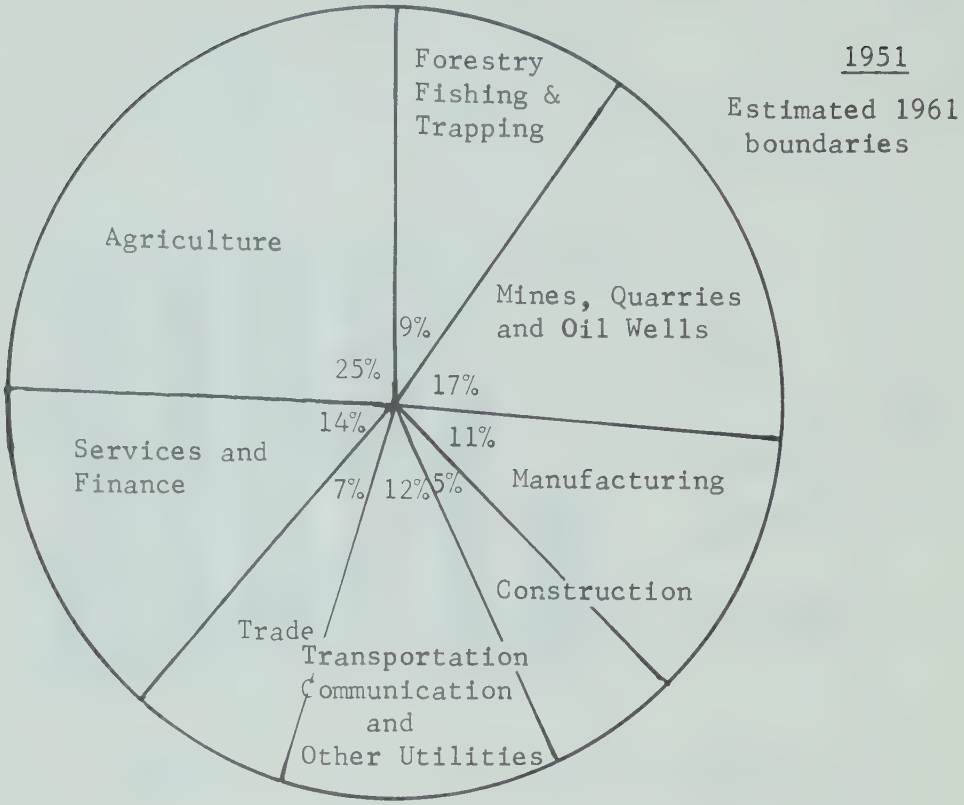


Figure C-9

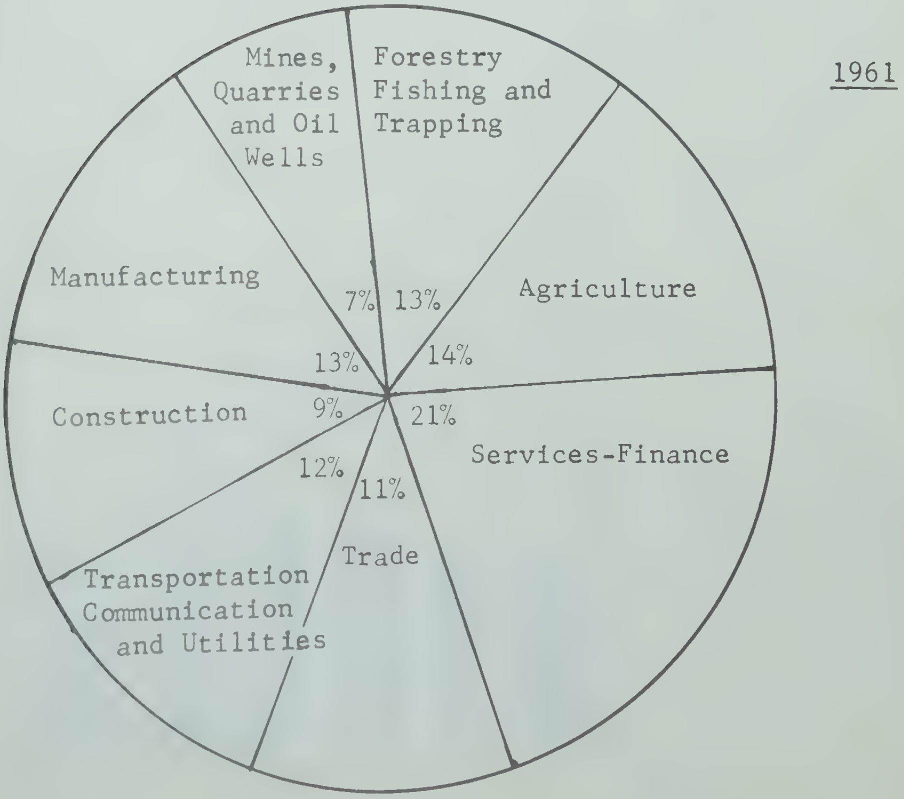


Figure C-10

PERCENTAGE LABOUR FORCE BY INDUSTRY

for C. D. 14

1975

(projected)

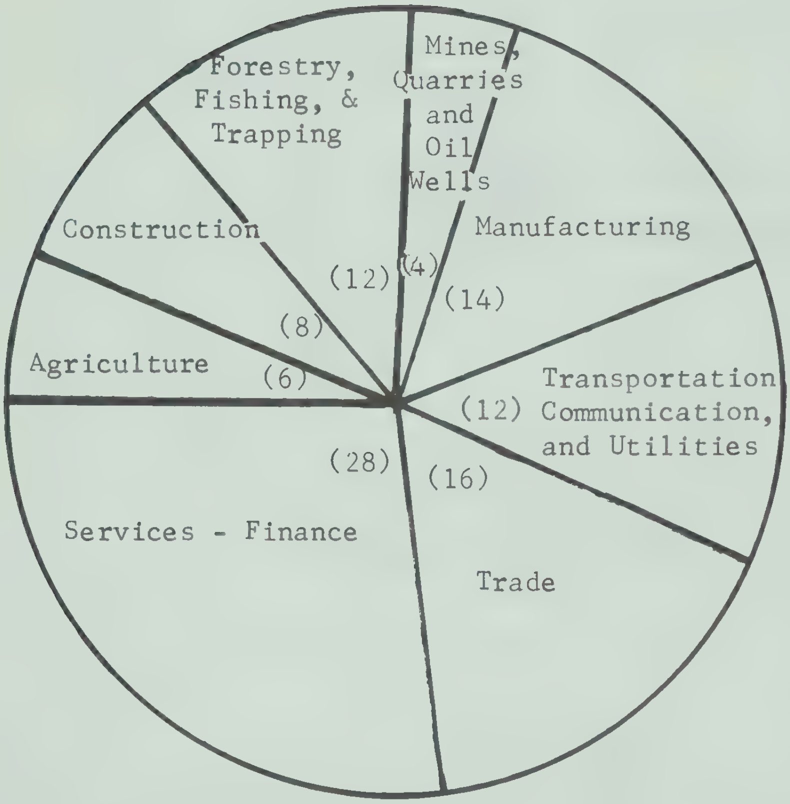


Figure C-11

PERCENTAGE DISTRIBUTION OF THE LABOUR FORCE
Alberta 1911 - 1961

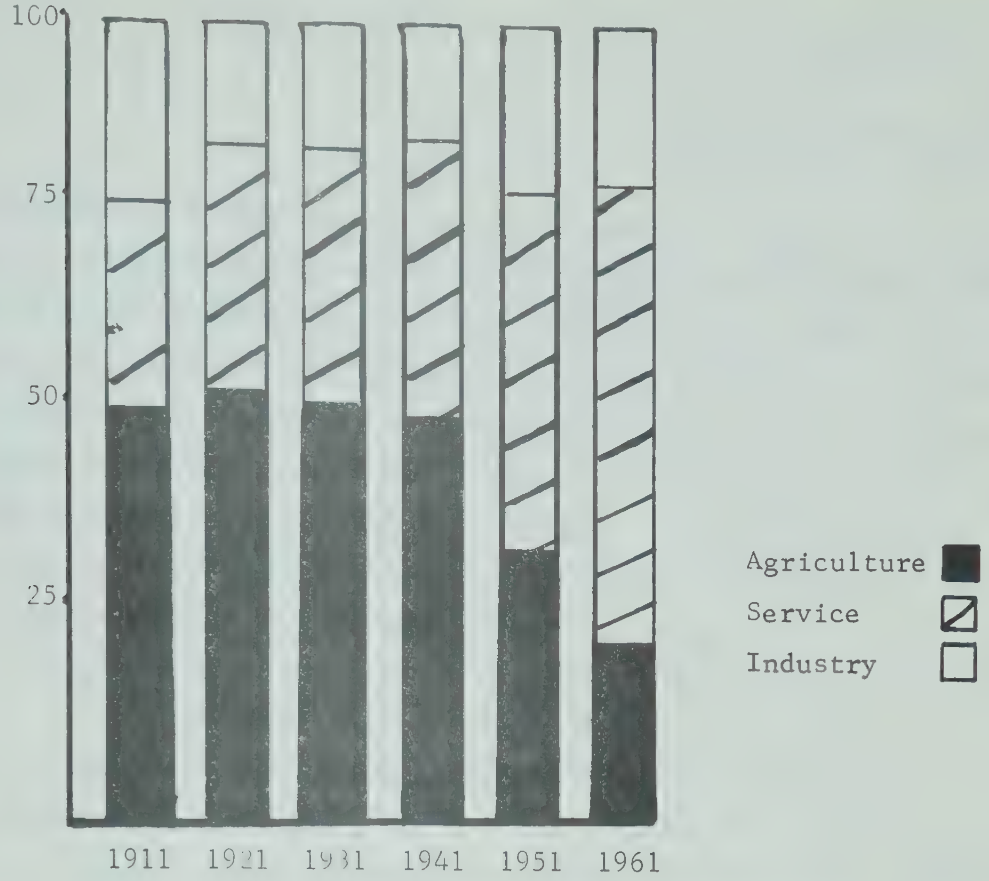
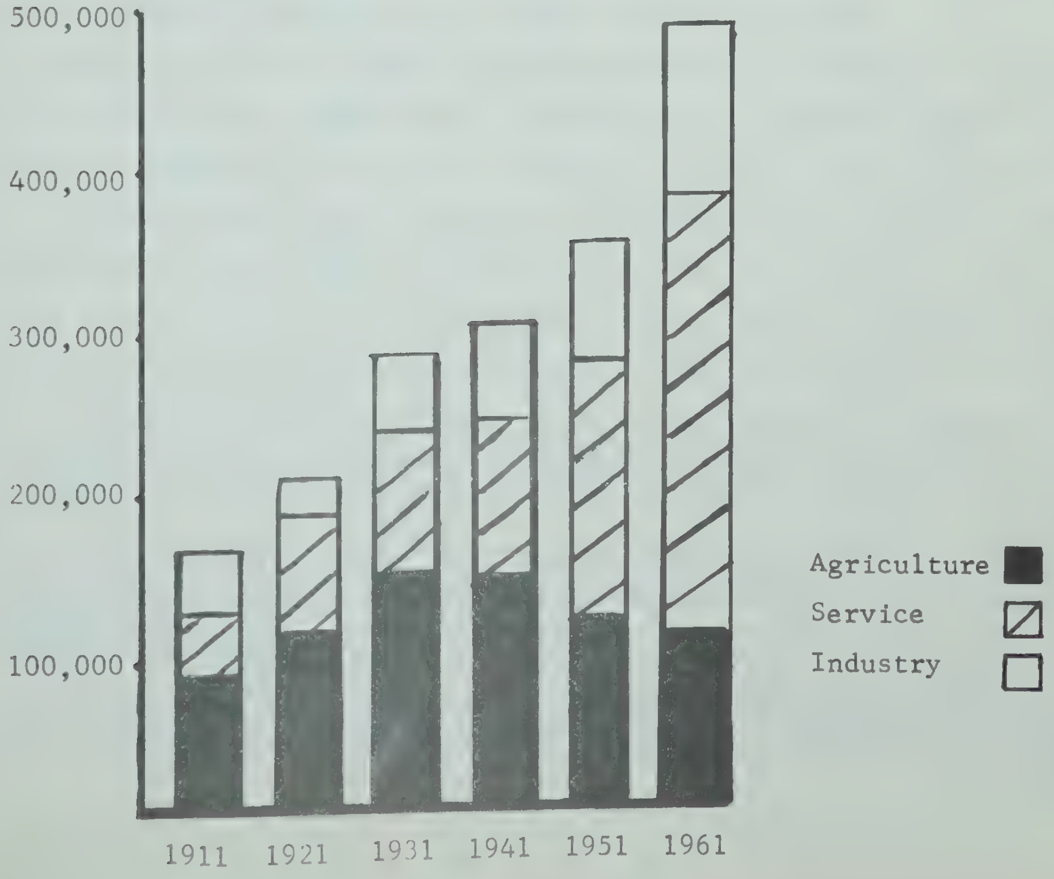


Figure C-12

NUMERICAL DISTRIBUTION OF THE LABOUR FORCE
Alberta 1911 - 1961



D. MANAGEMENT AND LEADERSHIP

ORGANIZATIONS AND ACTIVITIES

The organizational structure of any community consists of formally constituted federal, provincial and local governments and their agencies which have the power and authority to maintain and preserve social order. Supplementing the state are numerous voluntary organizations and associations which are involved with the affairs of the local community but which function in a more indirect manner. Service clubs, youth organizations, agricultural groups, chambers of commerce, etc. are representative of this grouping, the number and strength varying from community to community. Thus, a community is ideally comprised of the preceding organizational elements and upon the basis of these characteristics, the social institutions[1] of Census Division 14 are analyzed.

One of the primary objectives of rural development is teaching communities to act as a fundamental unit for the common good. Historically, the multitude of problems that arise in communities give impetus to a complex of social organizations that seek to meet or resolve various community problems. As new challenges and problems arise, existing organizations are often unprepared to meet added responsibility, therefore other organizations originate to meet the new found needs. This results in an extremely complex network of organizations and associations often with duplicating functions. In time it becomes essential for community welfare that some form of co-operation be developed among these groups.

In C. D. 14 certain of the above conditions describing organizations apply, particularly the duplicating functions of the various groups and their resulting complex network. In addition to these characteristics, in each community there appears to be relatively few persons whom, by choice or by position, seem to be carrying the functions of the majority of the groups. The general apathy of the greater number of the population towards activities supplementary to earning a living necessitates the condition of control by the few who are concerned with community welfare. This condition is typical of most communities and representative of a present trend in society.

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[1] The sum total of the patterns, relations, processes and material instruments built up around any major social interest ... The more generally recognized social institutions are the family, the church or religion, the school or education, the state, business and other items such as recreation, etc.
Henry Pratt Fairchild and Associates, Dictionary of Sociology (Paterson, N. J., Littlefield, Adam and Co., 1962), p. 284.

It is suggested that a study in the future be made of the listed organization of the area, with special reference upon factors such as age, sex, education, ethnic groups, etc. Time permitting, this approach would have been utilized in C. D. 14, however this was not possible and projection for groups in the area might by hypothesized from other studies of this nature which have been tabulated and are available for reference.

Lundberg[2] and Associates have summarized several factors indicated by voluntary association movements, namely:

a. Membership and activity in groups seems to be concentrated at ages in the late 40's and early 50's.
b. The more education: the more likely the affiliation with a group.
c. Membership is more common for males than for females.
d. The higher a persons socio-economic position in the community: the greater the likelihood of one or more group memberships.
e. Minority group persons are less likely to belong to voluntary organizations than are majority members.

Again it must be emphasized that these factors may or may not apply to the groups in the area but rather serve as analytical tools for the analysis of organizations and associations. Table D-I lists the various categories of groups found in each of the areas. Although Mayerthorpe, Drayton Valley and Stony Plain are not within the bounds of C. D. 14, they are included in the table because they will serve certain functions and/or needs of individuals living within the area who, due to geographic location, travel outside.

Despite the absence of any particular research project, there are nevertheless, several observations to be noted with respect to farm organizations, service and fraternal organizations and youth, cultural and athletic groups.

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[2] George A. Lundberg, Clarence C. Schroy and Otto N. Larsen. Sociology, (New York, Harper and Row Publishers, 1963), pp. 308 - 312.

The majority of the branches of the Alberta Department of Agriculture are located in Edmonton, however, the Extension Branch does offer significant service in the immediate area e.g. District Agriculturists, 4-H Clubs, Agriculture Societies etc. Farm Credit Corporations and the special agricultural programs are also located in the area. Although agriculture represents a comparatively small segment of the general economy of the area, services seem adequate for the needs. The greatest proportion of arable land is of the grey-wooded soil type, which is not the best suited for most agricultural purposes, however, agriculture interests remain quite significant. Possibly, through improved techniques of soil management and farm methods, the land could be more productive and suitable for substantial agriculture income. (See section on Agriculture for more detailed analysis.)

With regard to specific agricultural organizations in the area, the Evansburg, Wildwood and Edson areas are quite extensively organized e.g. FUA locals, 4-H clubs and agriculture societies. Many of the agricultural needs of the Blue Ridge area are served outside the Census Division, in this case, Mayerthorpe. For similar reasons Drayton Valley and Stony Plain may be utilized for certain services by agriculture people adjacent to the easterly boundary of C. D. 14. Municipal Affairs in conjunction with the Department of Agriculture maintain Agriculture Service Boards, which provide various agricultural services in the various improvement districts.

A major problem present in the area and among farmers in genral, is the apathy towards the utilization of more and better agricultural techniques for more productive and profitable farming. Extensive agriculture extension programs are needed to educate farm people to this end. Only a portion of those services that are presently offered are utilized. The consequences of non-participation not only results from but brings about great apathy and indifference, bringing criticism and negativism towards programs designed to solve the problems of the community. This applies to agricultural organizations as well as to the other groups mentioned in this report.

The number and location of service groups and fraternal lodges are extreme in the area. If anything, there is probably an excess of organization in proportion to the human resources available and active. Approximate average membership might reach in the vicinity of fifty for some of the larger groups with an average attendance somewhat less than half for most. Numerically smaller groups would record a proportionate membership - attendance ratio. As cited earlier, a major criticism would be the duplicative nature and function of many of the organizations. If possible, perhaps some co-ordinating body could channel the various resources in directions where the fundamental whole may benefit best through good organization. This condition seems more prevalent at the rural or small community level than at the urban counterpart.

An organization analagous to the preceding are the various chambers of commerce, located in the following centers: Evansburg, Wildwood, Edson, Hinton and Whitecourt. Again, chamber of commerce members commonly belong to at least one or more organizations, necessitating the spreading out of the available time and talents of participants. Generally, however, the chamber of commerce groups are very active and represent an integral force in the welfare and development of the community.

In conclusion, a few words need to be said with regard to other organizations, namely: youth groups, athletic and sport groups (see section on Recreation for more detailed analysis) and cultural organizations.

Youth organizations seem adequate for the group as a whole, at least until the "transitional years", roughly the middle and late teens, where there appears to be a gap. Air cadets, army cadets, cubs, scouts, guides, brownies, etc. are located in most of the areas and are reasonably well supported.

Cultural activities, although not developed to the fullest potential, are constantly developing. Specifically, a craft center which aims at developing the fine arts, is operative in the area, as well as several other crafts. The increase and growth of the number and size of libraries also represents significant development in the area. The development of libraries will tend to coincide with more and better educational facilities. Various other cultural activities such as bands, drama clubs, etc. are in the initial development stages also. In certain segments of the area there seems to be a lack of facilities for the development of the arts among the youth e.g. piano, dance, voice training, etc. However, this lack could be explained by the fact that population growth over the past decade or so has outstripped the corresponding growth of the arts and that with time natural development of these services will take place.

As a final note, recommendations and observations are not in all cases based upon hard facts but also represent value judgements. Given certain facts and conditions, similar findings should result and upon this basis some of the data in this section is based.

Table D-I

ORGANIZATION AND ASSOCIATION IN C. D. 14

	Edson[1]	Hinton[2]	Whitecourt[3]	Evansburg[4]
Lodges				
Masons	X	X	X	
Elks	X	X		X
Knights of Columbus	X	X	X	
Loyal Order of Moose		X		
Eastern Star	X			
Royal Purple	X	X		
Rebekahs	X			
I.O.O.F.	X			
Service Clubs				
Kiwanis	X	X		
Optimist	X	X		
Kinsmen	X	X		X
Canadian Legion	X	X	X	X
Womens Auxiliary of Canadian Legion	X	X	X	X
Chamber of Commerce	X	X	X	X
Lions	X		X	
Opti Mrs.	X			
Optimettes	X			
Kinettes	X		X	
Community Club	X			X
St. Johns Hospital Auxiliary	X			
Associations				
Civil Service Association	X			
Home and School	X		X	X
Oilmens' Wives			X	
A.T.A.				X
Red Cross	X	X		

(Cont'd)	Edson[1]	Hinton[2]	Whitecourt[3]	Evansburg[4]
Cultural Activities				
Library	X			
Band	X			X
Craft Centre	X			
Drama		X		
Youth Organizations				
Air Cadets			X	
Scouts	X	X	X	
Cubs	X	X	X	X
Forest Rangers	X	X		
Oratorical Club	X			
Army Cadets	X			X
Radio Club	X			
Violin Club	X			
Brownies	X	X	X	
Guides	X	X	X	
Sr. Red Cross	X			
Teen Club	X			
Church groups	X	X		
Dance Club	X			
4-H Club				X
Sports Clubs				
Minor Athletic Association		X		
Fish and Game Association	X	X		X
Golf & Country Club	X	X		
Amature Athletic Association	X			
Rodeo Club	X			
Curling Club	X			
Ski Club		X		

1/ May - 1962
2/ October - 1963
3/ July - 1961
4/ August - 1959

Source: Department of Industry and Development, Survey Booklets.

E. CAPITAL

INVESTMENT IN AGRICULTURE IN CENSUS DIVISION 14

The study of capital is confined to agriculture, the reason being that the other major resources e.g. the pulp and paper industry and the oil business are highly capital intensive and the management decisions of their use of capital are beyond the scope of this analysis.

This report is divided into two sections:

a. Capital investment on farms and

b. Debt structure of farmers.

The value of farm assets is expressed as the market value at the time the data was collected. The amounts were sub-divided into three categories.[1]

a. Land and Buildings.

b. Machinery and Equipment.

c. Livestock and Poultry.

Neither initial cost nor depreciation has been taken into consideration and machinery used in the performance of custom work and some trucks which were partially employed in the transportation of forest products were included in the value assigned to farm machinery.

TOTAL CAPITAL VALUE

Like Canada and the province as a whole, the number of farms in Census Division 14 has declined sharply since 1951. At the same time total farm capital value has been increasing. For C. D. 14, total farm capital has increased from $11.4 million in 1951, and $16.2 million in 1961 to an estimated value of $27 million in 1965. Consistent with the general increase in size of farms, the average total capital value per farm rose from $8,740 in 1951 to $16,710 in 1961 with an even more striking increase of over $10,000 per farm to $26,930 in 1965, (see figure E-1). In both 1961 and 1951 the average capital value per farm in the province was more than double the figure for Census Division 14. Average total capital values per acre in the period 1951 to 1965 puts C. D. 14 in a more favourable light as compared to the province.

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[1] See Tables E-1, E-2, E-3.

TOTAL CAPITAL VALUE PER ACRE

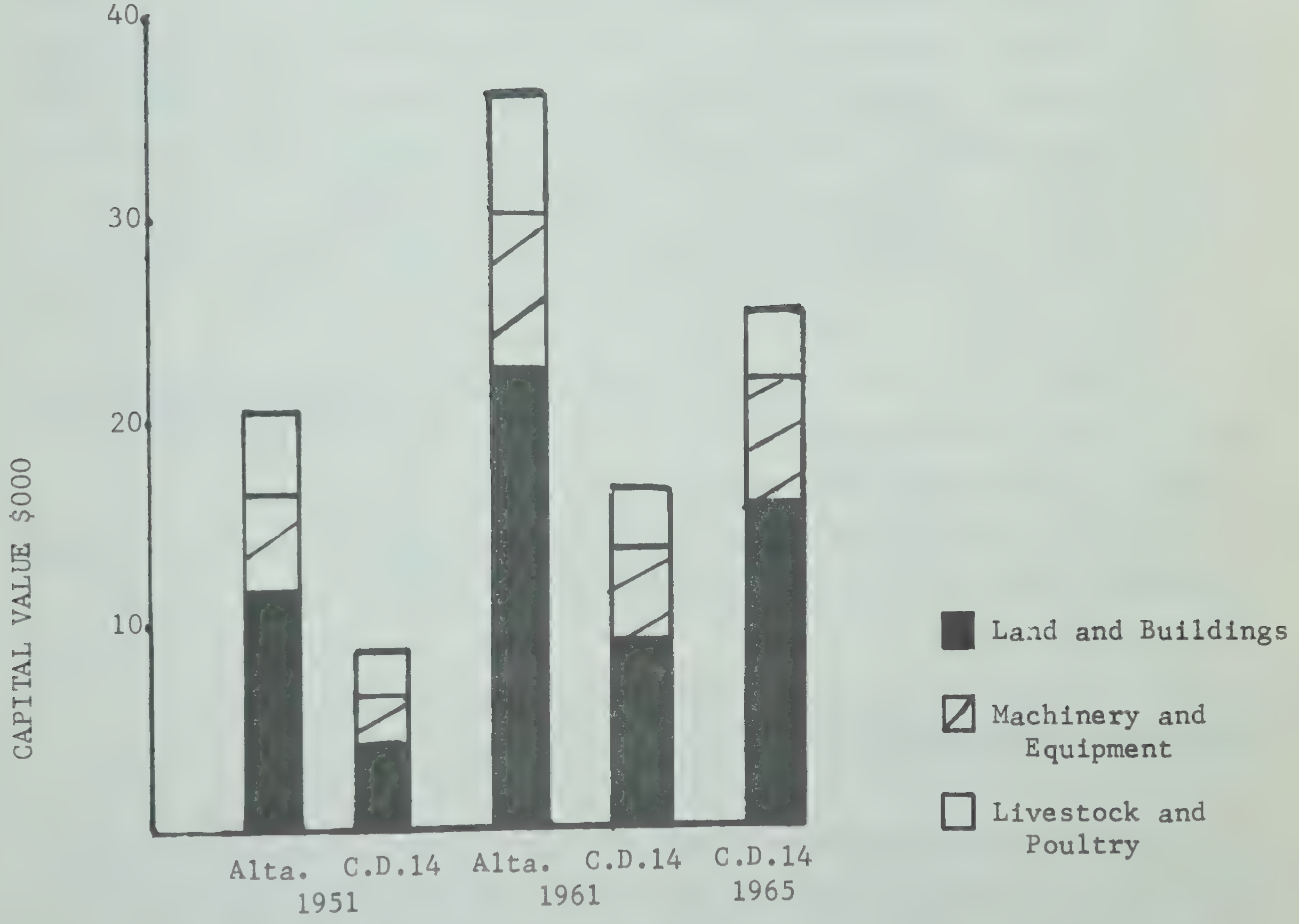
1951		1961		1965
C. D. 14	Alberta	C. D. 14	Alberta	C. D. 14
$28.52	$40.25	$45.16	$57.55	$77.24

Source: Census of Canada, and Farm Survey.

Figure E-1

AVERAGE CAPITAL VALUE PER FARM

1951, 1961, 1965



LAND AND BUILDINGS

The value of individual holdings in the project area compared to those in the province as a whole gives an indication of the relative economic position of the two groups.

Farmers in C. D. 14 have smaller farms and the value per acre of land is also less than its counterpart in the rest of the province. The average size of farms in C. D. 14 was 306 and 370 acres in 1951 and 1961, respectively, compared to 527 and 645 for Alberta over the same period.

These totals include land that is both owned and rented. The amount in each category is listed in the section under land use. The comparable area of farm land operated by farmers in 1964 in C. D. 14 is 447 acres. The average size of unit operated increased by 64 acres per farm in Census Division 14 compared to 118 per farm in the province between 1951 and 1961.

The increase in value of land may be accounted for by (a) improvements and (b) higher valuation of land per acre. It is doubtful if improvements to land accounted for much of the increase in the price of land since 1951. Instead it is suggested that the major portion of the difference can be accounted for by a general rise in land valuations itself.

The value of land per acre increased approximately the same amount ($17) in both C. D. 14 and the province in the intercensal years.

The rapid rise in recent years may be attributed, in part at least, to the termination of the "Homestead Era". Very little arable land is now available from the Crown, and as a commodity becomes more limited, there is a tendancy for the price to rise.

In 1965 the estimated value of land and buildings per farmer in Census Division 14 was $16,754. This is probably substantially lower than the provincial average.

MACHINERY AND EQUIPMENT

Although the investment in machinery and equipment per improved acre in C. D. 14 is second only to C. D. 9 in the province, the total per farm is relatively low. The value per improved acre remained relatively constant throughout the period 1951 to 1961, despite a decrease of 10% in investment per improved acre. It should be noted that while the total farm acreage in C. D. 14 decreased 12.5% during this period, the improved acreage increased by 20%.

The value of machinery and equipment per farm in Alberta was $4,625 in 1951 and $7,524 in 1961, while the corresponding figures for C. D. 14 were $2,459 and $3,941. The estimated value per farm in 1965 in C. D. 14 was $6,176. This increase reflects a period of relatively labour-intensive to a capital-intensive transformation. At the present time there is a severe shortage of farm labour in the area.

The relative degree of rate of mechanization may be obtained from an examination of the number of combines. (See Tables E-4 and E-5). During the intercensal years, the number of combines increased 14.9% in the province, compared to 53.2% in C. D. 14. There were marked differences within the area. I. D. 78 had a 70% increase, compared to 21.4% in Improvement District 95 and 44% in I. D. 109. Another indication of the rapid rate of mechanization is increase in the percentage of farmers with electric power. In Alberta there was an increase of 29%, compared to 183% in C. D. 14, indicating a rapid rate of development. At the present time about 80% of the farms in C. D. 14 are electrified. (See Tables E-4 and E-5

LIVESTOCK AND POULTRY

The estimated value of livestock and poultry in 1965 is $4,001 per farm in C. D. 14. This is a moderate increase over the values of $2,084 in 1951 and $3,134 in 1961. Census figures were $4,559 and $6,164 for Alberta, (see Table E-3).

In spite of the fact that much of the area appears to be better suited to the raising of cattle than grain farming, there has not been a rapid increase in livestock numbers in C. D. 14 compared to the province. The increase in number of cattle in the survey area between 1956 and 1961 was 21.5% compared to 17.6% for Alberta, (see Tables E-4 and E-5). I. D. 78 showed the greatest increase (30.3%), in I. D. 95 it was 6.6% and 14.8% in I. D. 109, (see Table E-6 to E-8).

Since 1961 the numbers of cattle appear to have increased more rapidly. It is estimated that there are 29 head of cattle per farm in 1965 compared to just under 20 in 1961. Practically all of the increase has been in beef cattle, as the number of dairy cattle per farm has remained constant at 3.5 head, (see Table E-10).

A further indication of the increase of cattle numbers is shown by the number of calves vaccinated under the Calfhood Vaccination Policy. It is recognized that the number of heifers vaccinated is probably less than the number actually present and that the proportion vaccinated has risen in recent years.

Table E-I

VACCINATED HEIFERS, CENSUS DIVISION 14

I. D.	1960	1961	1962	1963	1964
78	1,354	1,633	1,733	1,961	2,014
95	508	573	608	667	700
109	--	582	701	1,074	1,100
Total	1,862	2,788	3,042	3,702	3,814

Source: Veterinary Services Branch, Alberta Dept. of Agriculture.

The estimated cattle population is obtained by multiplying the number of heifers vaccinated by 6.[1] Accordingly, in 1961 the total cattle population would be estimated at 16,428. This is substantially below the number reported by the Census but does indicate a trend toward a greater population.

At the present time hogs appear to be on the decline although their numbers rose sharply between 1956 and 1961. During this period the increase was 21.3% in Alberta and 95.6% in C. D. 14. This increase took place at approximately the same rate throughout the area, (see Tables E-5 to E-8).

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[1] Heifer calves vaccinated annually are estimated to be 1/6 of the cattle population.

There were approximately twelve hogs per farm in C. D. 14 in 1961, with the highest number per farm in I. D. 109 (18) and the lowest in I. D. 95 (8). In 1965 the estimated number of hogs per farm was 7.7 head.

The number of sheep also appear to be declining in recent years from 6 per farm in 1961 to 3.6 in 1965. On the other hand there was a modest increase from 1956 to 1961 of 35.3%, (see Table E-5).

Poultry numbers appear to be sharply reduced which is a continuation of the trend reported between 1956 and 1961. Only I. D. 95 shows an increase.

Table E-II shows the number of livestock per 100 acres of farm land. The most significant difference is in the number of cattle per 100 acres in Alberta and Census Division 14.

Table E-II

NUMBER OF LIVESTOCK PER 100 ACRES OF FARM LAND

in 1961

Number Per 100 acres of Farm Land	C. D. 14	Improvement Districts				Alberta
		78	95	96	109	
Milk cows	1.0	1.2	0.8	0.03	0.5	0.6
Cattle	4.3	4.3	4.6	0.6	4.7	5.5
Pigs	3.1	3.5	2.1	--	3.9	3.1
Sheep	1.8	1.7	2.8	--	1.2	1.1
Horses	0.4	0.4	0.6	1.20	0.4	0.2
Hens & Chickens	19.8	21.7	28.5	0.20	10.2	19.5

Source: Census of Canada, 1961.

IMPORTANCE OF COMMERCIAL FARMS

Table E-10 indicates the numbers and values of livestock and poultry on farms in 1961. It shows, in effect, that a much higher proportion of livestock is raised on commercial farms in Alberta than in C. D. 14.

By subtraction the significance of the capital invested in farms by non-commercial farmers in C. D. 14 is one of the most striking observations of the study. Non-commercial farmers comprise 52.5% of the farm population in 1961, control 33% of the total capital value and receive 26% of the income from the sale of agricultural products. Conversely, 47.5% of the commercial farmers control 67% of the total capital value and obtain 74% of the income from the sale of farm products.

LAND EQUITY

Using a generally accepted definition of the term, the values for land equity were determined by deducting liabilities (both short term and long term) from assets (the estimated value of the land). Figure E-2 shows the distribution of equity, of the sample farms, showing the heavy concentration in the $5,000 to $9,999 range. It is notable that only 10% had a net worth of less than $5,000 and only 8% had a net worth of greater than $30,000.

Figure E-2
LAND EQUITY OF SAMPLE FARMS
1965

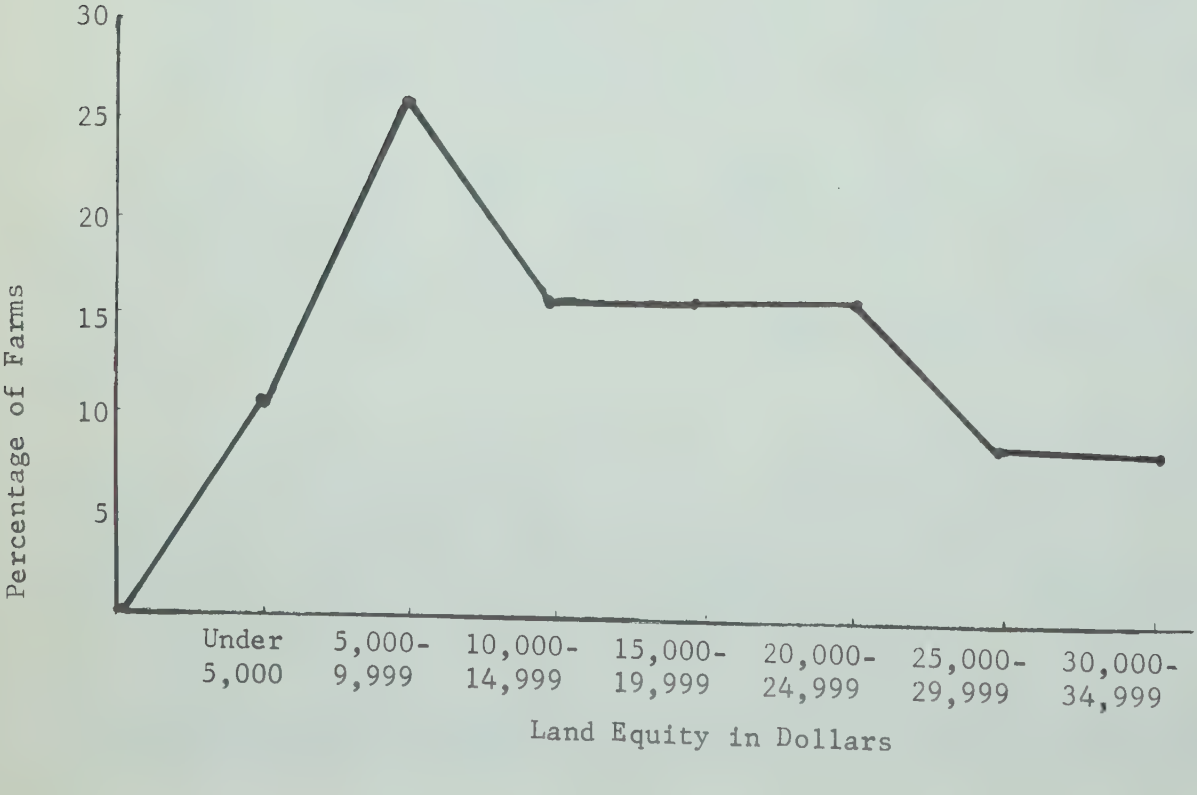

Table E-III
LAND EQUITY OF THE SAMPLE FARMS
in 1965

In Dollars	Number of Persons	Per Cent
0 - 4,999	5	10
5,000 - 9,999	13	26
10,000 - 14,999	8	16
15,000 - 19,999	8	16
20,000 - 24,999	8	16
25,000 - 29,999	4	8
30,000 - 34,999	4	8
Total	50	100

Source: Farm Survey.

In 1961, 22% of the farmers in C. D. 14 had mortgages and/or agreements for sale on their land compared to 31% for the province.[1] The 1965 sample indicated that the percentage of farmers in this category had increased to 34%.

Figure E-3 shows the equity and debt structure per farm of the farms in the 1965 sample survey. Column one shows the average total capital value with the shaded area indicating that portion which is debt. Column two shows the percentage of this debt which is attributed to various segments of the farming operation.

The total net worth of the sample of 50 farms amounted to $1,346,521 for an average of $26,931 per farm. The total liabilities reported by the farmers amounted to $157,509 for an average per farm of $3,150. It is suggested that the value of farms is slightly higher than the present market value and similarly it is believed that there are some debts which were not reported. Table E-IV lists the assets and liabilities of farmers in the sample. Also shown is a break down of the farm credit into various categories, (see Table V).

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[1] Census of Canada - Agriculture Bulletin.

Figure E-3

AVERAGE EQUITY AND DEBT STRUCTURE OF SAMPLE FARMS IN CENSUS DIVISION 14

1965

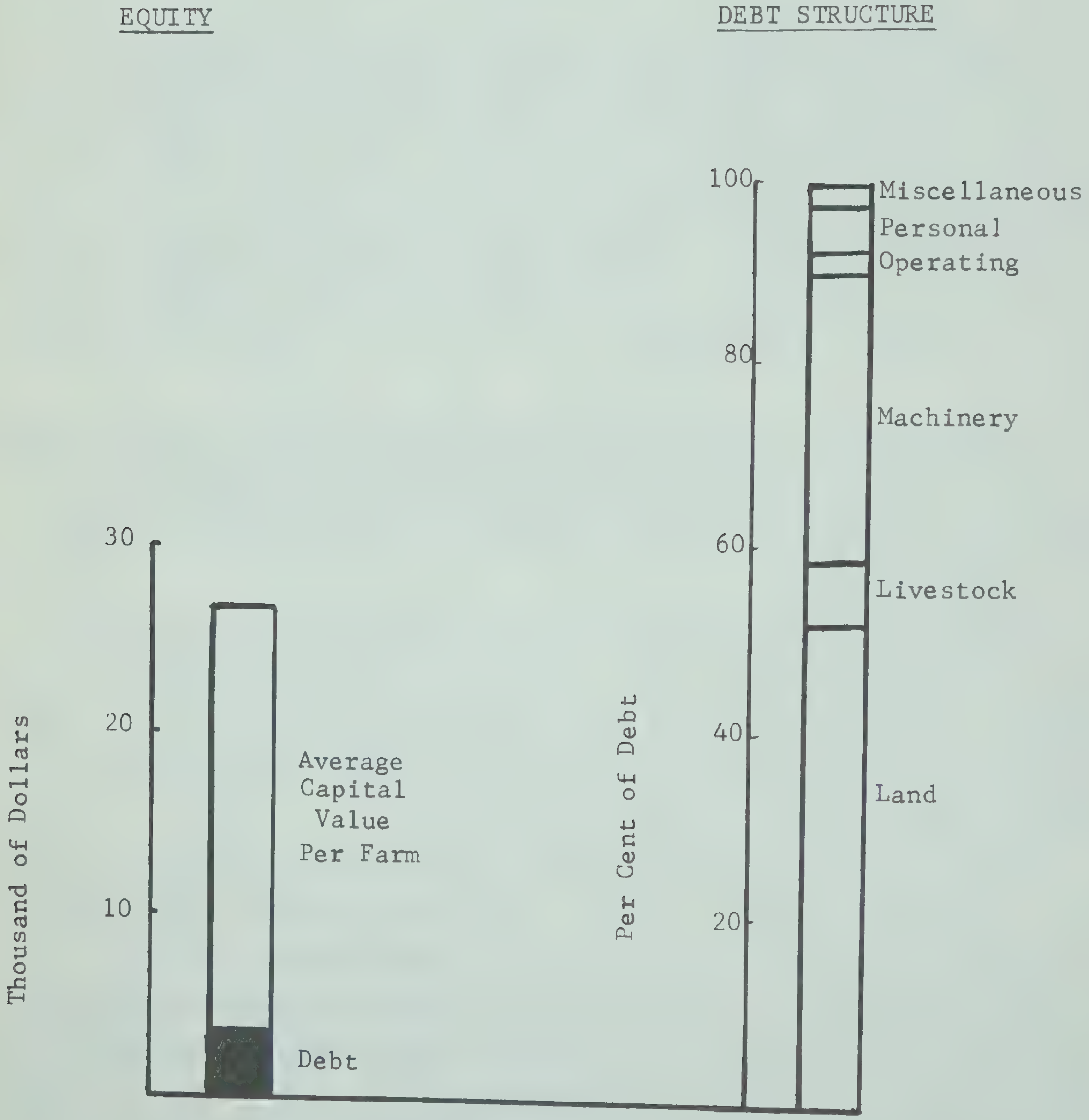


Table E-IV

NET WORTH OF FARMS IN CENSUS DIVISION 14 SAMPLE

1965

	ASSETS		LIABILITIES			
	Total	Average Per Farm	Total	Number Reporting	Average Per Farm Reporting	Average Per Farm In Survey
Land & Buildings	$ 837,685	$16,754	$ 81,440	17	$4,791	$1,629
Livestock	200,036	4,001	11,685	6	1,948	233
Machinery	293,400	5,868	48,307	17	2,842	966
Other	15,400	308	16,077			321
Total	$1,346,521	$26,931	$157,509			$3,149

NOTE: Average net worth $23,782.

Source: Farm Survey, Farm Economics Branch, 1965.

Table E-V

BREAKDOWN OF FARM CREDIT OF CENSUS DIVISION 14 SAMPLE

1965

Credit For	Number Reporting	Total Amount	Per Cent Of Total Credit
Land	17	$ 81,440	52
Livestock	6	11,685	7
Machinery	17	48,307	31
Operating Expenses	13	5,340	3
Personal and Household Expenses	12	6,122	4
Other Miscellaneous Expenses	9	4,615	3
Total		$157,509	100

Source: Farm Survey, Farm Economics Branch, 1965

An examination of the preceding tables indicates that little more than half of the total debt was owed for land and buildings (51.7%). Of the remainder of the largest amount was obtained for the purchase of machinery and equipment (30.7%) while loans for livestock and poultry amounted to only 7.4% of the total debt.

FARM SIZE AND LAND DEBT

It appears that it is the larger farmer who owes on his land. He also has better prospects of meeting his debts due to his potential return from his large holdings, hence he may be considered a better credit risk, and be given more opportunities to borrow. The small farmer does not seem to go into debt.

Over half of the farmers operating 320 or more acres (21 out of 34) do not owe on their land. Yet of those farmers who do owe on their land (17 out of 50), 13 are found operating 320 or more acres. Total acres are more significant here than improved acres. Over half of the farmers sampled (36 out of 50) have less than 200 improved acres of land. Of these, ten owe on their land.

Those who owe on their land are mostly recent tenants or owners on these holdings - 10 out of 17 have been on their sites under ten years. Only one man who owes on his land has been on it over 31 years. In total almost half of the farmers sampled (22 out of 50) have been on their farm 10 years or less. Thirteen have been on these holdings over 31 years.

The Farm Credit Corporation is the largest lender in the area. It is suggested that the previous owner of land would be the second largest lender while banks would likely be next. The exact amount loaned by chartered banks in the area is unavailable. Table E-VI summarizes the source of credit by major categories.

Eighty two per cent of the farmers indicated that the availability of credit was adequate. Ten per cent indicated that they did not want to go into debt under any circumstances. The other eight per cent wanted more credit but were unable to obtain it at the present time.

Table E-VI
PERCENTAGE OF LOANS BY CREDITOR
1965

	Land	Machinery	Livestock	Operating Expenses	Personal & Household
Previous Owner	27		18	8	
F. C. C.	64	18	63		
Bank	6	52	19	24	73
Finance Company		12			1
Retail Outlet		18		68	18
Homestead Loan	3				
Professional Services					8
Average debt per farm	$1,629	$966	$232	$107	$122

Source: Survey of Farms.

It may be concluded that the availability of credit is generally satisfactory. However, it would appear that most of the farmers could profitably use more credit, especially short term and intermediate. The use of credit as a production tool was not fully appreciated.

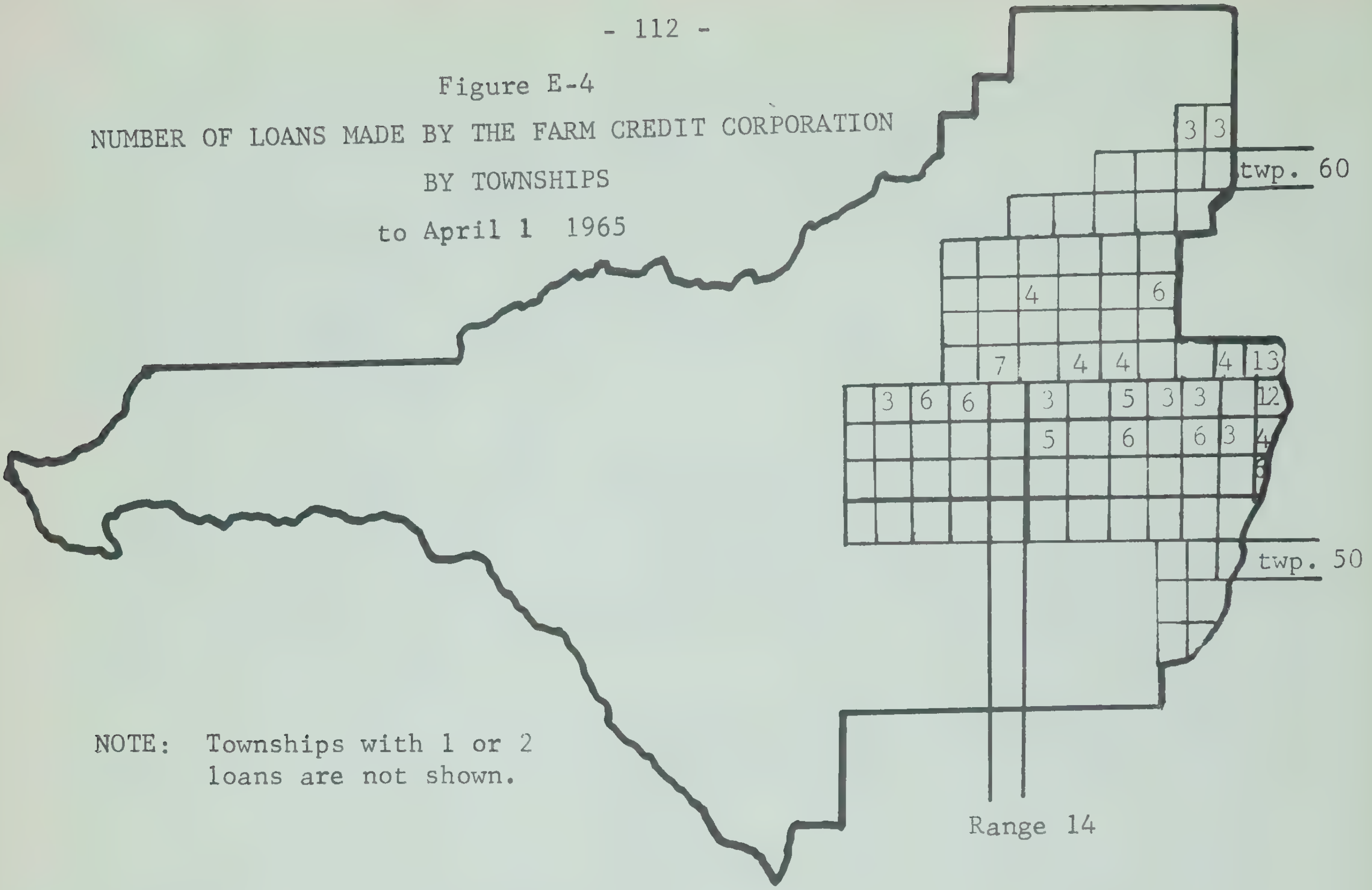
MAJOR LENDING AGENCIES

THE FARM CREDIT CORPORATION

The Farm Credit Corporation was established in 1959 by the Federal Government to administer long-term mortgage loans to Canadian farmers. These loans are intended to help competent farmers to establish profitable farm units. Money should be used to provide an increased income which will pay all operating and maintenance costs, give the farmer and his family a good living, and provide for the orderly repayment of the required credit.

Figure E-4

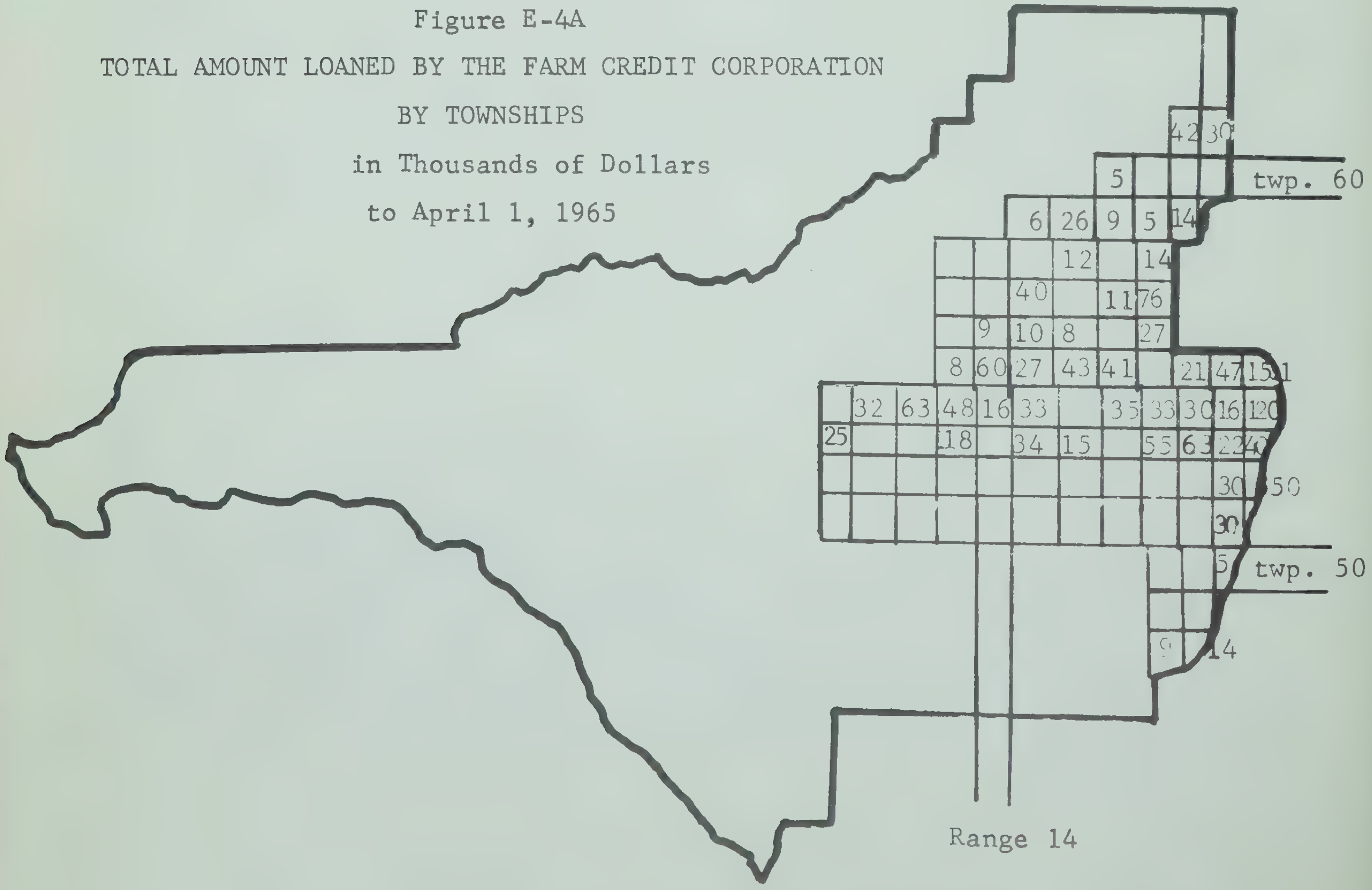
NUMBER OF LOANS MADE BY THE FARM CREDIT CORPORATION
BY TOWNSHIPS
to April 1 1965



NOTE: Townships with 1 or 2 loans are not shown.

Figure E-4A

TOTAL AMOUNT LOANED BY THE FARM CREDIT CORPORATION
BY TOWNSHIPS
in Thousands of Dollars
to April 1, 1965



Two types of loans are granted by F. C. C.: a "Standard" loan up to 75% of the appraised value of the farm but not exceeding $40,000; or a "Package-deal" loan up to 75% of the appraised value of the farm, livestock and equipment but not exceeding $55,000. At least 60% of the necessary security must be in land and not more than 25% may be in equipment. The interest rate is 5% on "Standard" loans up to $20,000, and on "Package-deal" loans up to $27,500. On the amount of any loan in excess of $20,000, in the case of "Standard" loans, and $27,500 in the case of "Package-deal" loans, the interest will vary from time to time depending on the general level of interest rates.

In Census Division 14, as of December 31, 1964, the F. C. C. had approved 153 loans. The average of the loans approved was $10,080, but amounts varied from $2,000 to $21,000. The total amount loaned since 1960 was $1,542,200. There are no arrears in excess of one year.

Loans were approved for the following purposes and in these percentages: land and buildings purchase and/or improvement, 85.6%; purchase of livestock, 12.3%; machinery purchase and payment of machinery debt, 0.9%; and miscellaneous, 1.2%.

VETERANS' LAND ACT

The Veterans' Land Act is another major credit source. Enacted in 1942 and administered by the Department of Veterans' Affairs, Government of Canada, the Act originally assisted veterans settling in Canada as full-time farmers, part-time farmers, (small holders) and commercial fishermen. It has been broadened considerably. Veterans of the Special Forces (Korea) are now eligible for assistance, and Part II of the Act provides that any qualified veteran who is approved for a loan under the National Housing Act may receive financial and other assistance to build his own home on any lot suitable for a single-family dwelling.

Assistance to full-time farmers is available under two categories: Commercial Family Farms and Small Family Farms. A veteran settled on an economic or commercial family farm unit may receive assistance up to $20,000 under Parts I and III of the Act, or 75% of the value of the land, basic herd livestock, and farm equipment. At least 60% of security must be in farm land.

Under Part I of the Act, $6,000 is the maximum to be loaned for 30 years and interest at 3½% is paid only in the first year of contract, with total repayment spread over 29 years on an annual amortized basis. Ten per cent down payment is required. In addition, $20,000 at 5% amortized over 30 years, is available under Part III, for the purposes of purchasing a farm unit, additional land, livestock and farm equipment, or permanent improvements, or debts incurred for any of these or other stipulated purposes. Small family farms are farms that provide a veteran and his family with an acceptable standard of living but are not capable of producing a large enough income to be classed as commercial farm units. Financial assistance may be approved up to $12,000, or 75% of the market value of the land, whichever is less.

Between 1945 and 1964 in C. D. 14, 87 full-time farming loans under Part I were granted, and 40 second or third loans under Part III. Sixty five provincial land grants were issued, amounting to $150,800. The amount of full-time farming loans approved was $689,955, yielding a grand total of $840,755 loaned by V. L. A. On December 31, 1964, $245,000 was outstanding, with $1,196 in arrears.

ALBERTA FARM PURCHASE CREDIT ACT

The Alberta Farm Purchase Credit Act was created to assist farmers to purchase economic farm units, and to provide a substantial down payment to the farmer who is selling the farm. Loans are processed through a Farm Purchase Board which is set up by a municipal by-law and agreement with the Department of Agriculture. On an approved application, the purchaser makes a down payment of 20% or more, and the government pays approximately 50% (to a maximum of $10,000), which gives the seller a total down payment of approximately 70% of the selling price. The interest rate is 5%, and the debt may be paid over a period of up to twenty years, provided payments do not go beyond the borrower's 66th birthday.

To qualify for this loan, applicants must be a Canadian or British subject, at least 21 years of age, have lived at least three years in Alberta, have three years farming experience, own, or have access to the necessary equipment to farm the land, and be able to pay 20% of the purchase price. In most father and son transactions the vendor is prepared to waive the down payment. Applicants must intend to become a bona fide farmer, and if they are farmers, land holdings including the proposed purchase should not exceed the value of $40,000. Loans are only made on a farm purchase transaction.

The vendor may receive all cash if the purchaser is able to pay 50% down and if the total price of the land is not over $20,000. Otherwise, the vendor will be paid in ten years if the purchaser takes twenty years to pay, or fifteen years if the total price is under $30,000. The vendor receives interest at 4½% and does not assume any loss.

The Alberta Farm Purchase Board has made seven loans in I. D. 78, two in I. D. 95 and three in I. D. 109, as of December 31, 1965. The average amount loaned was $4,300, and only one account is in arrears.

INSURANCE, TRUST AND MORTGAGE COMPANIES

Data are lacking on the utilization of this type of credit by Census Division 14 farmers. Insurance, trust and mortgage companies are categorized with the banks in census data, and though they do steady business this category falls fourth in frequency of use in both Alberta and Census Division 14 (See Table E-VII).

Table E-VII

MORTGAGES AND/OR AGREEMENTS FOR SALE

June 1, 1961

	ALBERTA	C. D. 14
All Farms Reporting	22,738	216
Type of Holder		
Government	10,900	113
Bank, Insurance, Loan, Trust or Mortgage Co.	4,828	59
Private Individual	7,187	60
Other (Credit Union, Railway Co. etc.)	673	3
Not Stated	301	4

Source: Census of Canada 1961, Bulletin 5.3.

THE INDUSTRIAL DEVELOPMENT BANK

The Industrial Development Bank is a Crown corporation established by Parliament in 1944. Money can be used for anything the borrower wishes which, in the opinion of the bank, is likely to return sufficient earnings to repay the loan and other costs of the business. Interest rates depend on the general level of interest in Canada, are presently about 7%. All loans are secured by first mortgage on real estate. The equity of the borrower must be substantial repayment in approximately ten years. Loans are not considered where other sources are available at a reasonable rate. For farm loans, I. D. B. generally enters the picture if the loan is beyond the scope of the F. C. C. In C. D. 14 by the end of 1964 there had been no loans to farmers or agricultural businesses. This is explainable by the availability of the F. C. C. to the farmers of this area.

CHARTERED BANKS

Intermediate and short term credit needs are met by several sources. Farm Improvement Loans are handled by chartered banks under a system of federal government backing. Farm Improvement Loans can be used for the purchase of farm implements, breeding stock and, in the case of land owners, to build or alter farm buildings, fences, etc., but not for the purchase of land. Applicants principal occupation must be farming. The maximum loan available to a farmer at any one time is $15,000. Length of repayment depends on the size of the loan, on some it extends up to ten years, at an interest of 5%. Amounts loaned by banks are unavailable.

CREDIT UNIONS

Credit unions are set up by interested persons who pool their savings, incorporate, and lend to members. In Census Division 14 District Saving and Credit Unions have issued 51 loans since 1961. The total amount borrowed from 1961 to 1964 is $11,348.

TREASURY BRANCHES

Loans to farmers by treasury branches in C. D. 14 are mainly for operating expenses. Five treasury branches, reporting agricultural loans from 1959 to 1963 in C. D. 14, granted over 500 such loans, an average of $835.36 per loan.

RETAIL OUTLETS

Short term credit for feed, fertilizer and fuel showed relatively small amounts borrowed with good repayment. At the end of 1963, $36,541 was owing on fuel in C. D. 14. The amount of $7,000 was owing for fertilizer, and $8,400 was owing for feed for C. D. 14 at the end of 1963. Bad debts prior to 1962 for fuel amounted to $2,865. Farmers in the Wildwood area appear to have more outstanding fuel debts than other parts of the Census Division.

FEEDER ASSOCIATIONS

Feeder associations are set up under the Co-operative Association Act of the province, and are administered by the Livestock Branch of the Department of Agriculture. Money borrowed from them can be used for the purchase of feeder cattle and lambs. Interest rates are presently about 5½% to 5¾%. An association can borrow a maximum of $500,000 with upper limits set on the maximum amount which any individual may borrow, usually about $6,000. No breeding stock may be purchased under this loan. Feeder associations operate most successfully in a predominantly livestock feeding district, and thus tend to be limited to those areas where livestock feeding is a major, permanent enterprise. To the present, C. D. 14 has not been such an area, either because the farmers are not interested, or not informed of such practices. The Edmonton Feeders' Association gets about one inquiry per year from farmers in the C. D. 14 - Edson area.

TELEPHONES

The Alberta Provincial Legislature established a Rural Mutual Telephones Revolving Fund in 1957 to assist Mutual Telephone Companies to establish and upgrade services to rural areas. These Revolving Fund loans are available to all Mutual Telephone Companies for any period up to 20 years at an interest rate of 4½%.

In C. D. 14, two rural telephone service developments are under construction (summer 1965) and two more are planned for the future. Six areas already have companies, with a total of 22 lines, serving 205 residents, at a total fund loan cost of $71,277.00 or almost $348.00 per resident serviced.

RURAL ELECTRIFICATION

Loans to Rural Electric Associations in C. D. 14 have totalled 724 between 1954 and 1964. The total amount loaned is $81,586,300, and at 3½% interest. Only $557,653.36 is still owing. Repayment has been excellent.

HOMESTEAD LEASE LOANS

Homestead Lease Loans of $1,000 each to July, 1964 in C. D. 14 were available to persons taking out a homestead. Total number of loans is unavailable.

Other lending institutions are probably carrying out transactions but the number of agencies and the volume of money loaned is not known.

SUMMARY

In summary, the total capital invested per farm is much higher in Alberta than in C. D. 14, and similarly the capital invested per acre follows a similar pattern. The one major exception is machinery and equipment. The value of machinery and equipment per improved acre is higher in C. D. 14 than in Alberta, and is second only to Census District 9.

The high valuation of machinery per acre is more the result of small acreages than expensive machinery. It does indicate, however, one of the problems facing the farmers in the area; the problem of high cost of machinery.

So far as debt structure is concerned, the amount of debt is relatively low, at approximately one per cent of the total capital value. History of repayment has been excellent.

The Farm Credit Corporation is the largest single lender in the area and has an office at Evansburg.

Additional credit could be used to advantage by most farmers, although there appears to be reluctance on the part of many to borrow funds.

F. INCOME

The analysis of income in Census Division 14 is limited to farm and non-farm categories because, with the exception of agriculture, separate, detailed census data is not available for the major industries. It is expected that this type of information will become available with forthcoming National Pension Plan data.

NON-FARM INCOME

Non-Farm Families and Persons Not In Families

Of the fifteen census divisions in the province, Census Division 14 ranks fifth in average earnings per non-farm family with $5,105. This figure compares favorably with the provincial average of $5,602. Of the four divisions whose earnings were higher than C. D. 14's each included a major urban center, namely, Calgary, Edmonton, Red Deer, and Lethbridge, leaving Census Division 14 with the highest family earnings of those divisions which include no large urban centres. Only C. D. 6 and 11 (Calgary and Edmonton) had incomes above the provincial average. (See Figure F-1.)

Similarly, average earnings of persons not in families in C. D. 14 also ranked fifth compared to other census divisions in the province.

Figure F-2 shows a break-down of the non-farm families by income group for Alberta and reveals that 13% of the families earned under $2,000 in 1961. The corresponding percentage for C. D. 14 is 15%, which represents a slightly larger proportion of families in the marginal or sub-marginal subsistence category than the provincial figure. In the income bracket $4,000 - $5,999, the respective percentages of non-farm families for Alberta and C. D. 14 show 32% and 29%, a difference of 3.3%. An even smaller variation, 2%, is shown for the $6,000 - $7,999 income group. However, in all cases it should be kept in mind that only two census divisions are above the provincial average and it is therefore not unusual for incomes to be generally lower than provincial figures.

Figure F-1

AVERAGE INCOME PER NON-FARM FAMILY IN CENSUS DIVISIONS OF ALBERTA - 1961

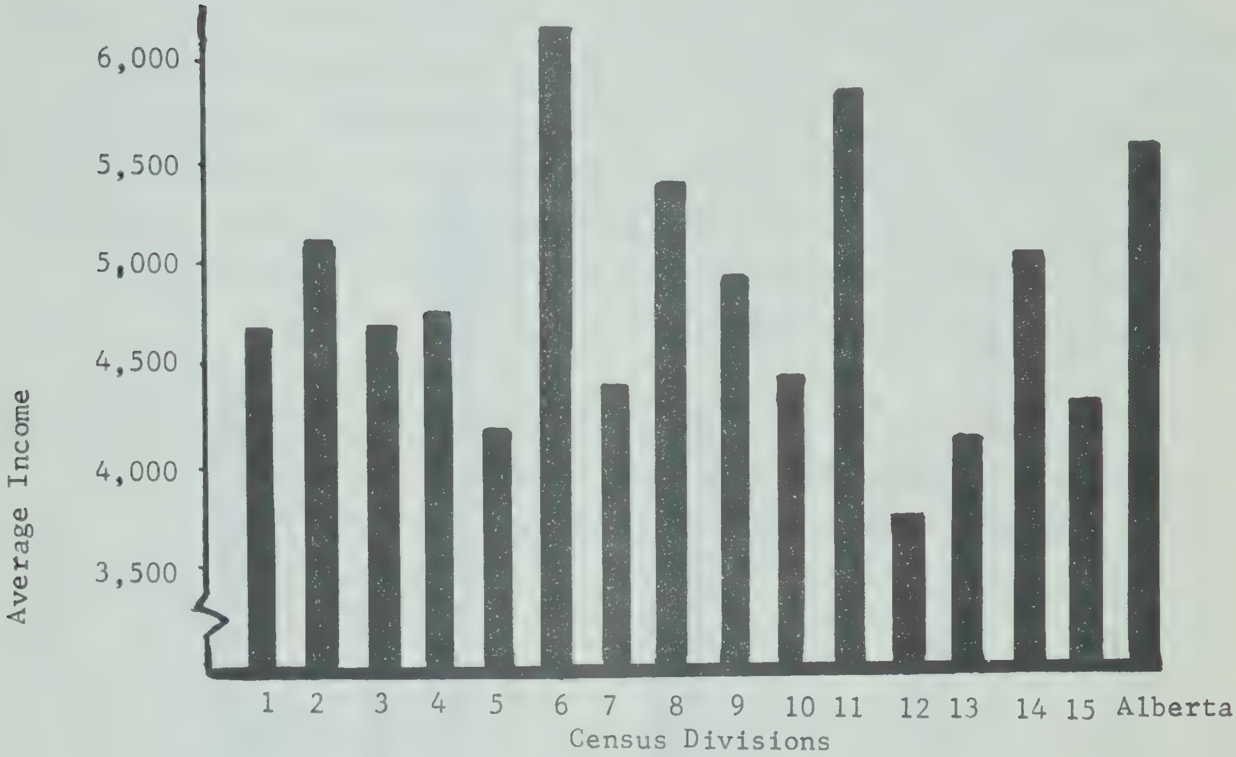
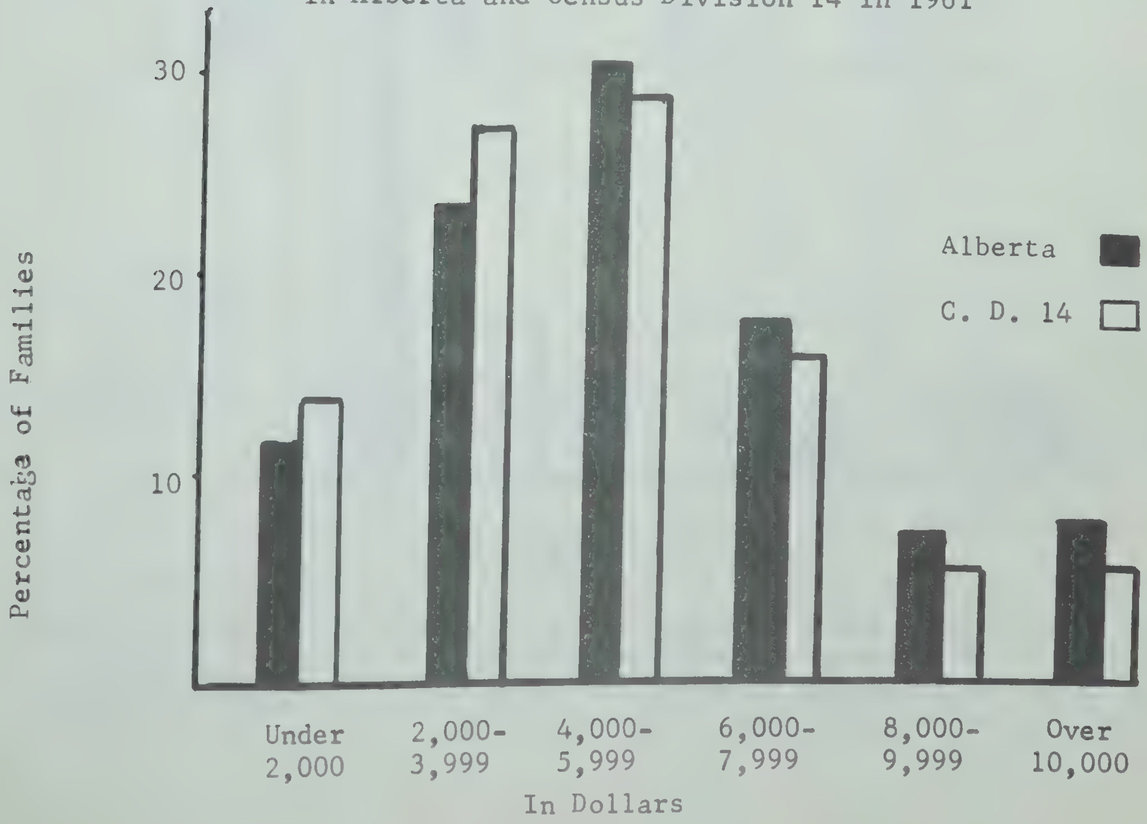


Figure F-2

INCOME OF NON-FARM FAMILIES BY INCOME GROUPS

in Alberta and Census Division 14 in 1961



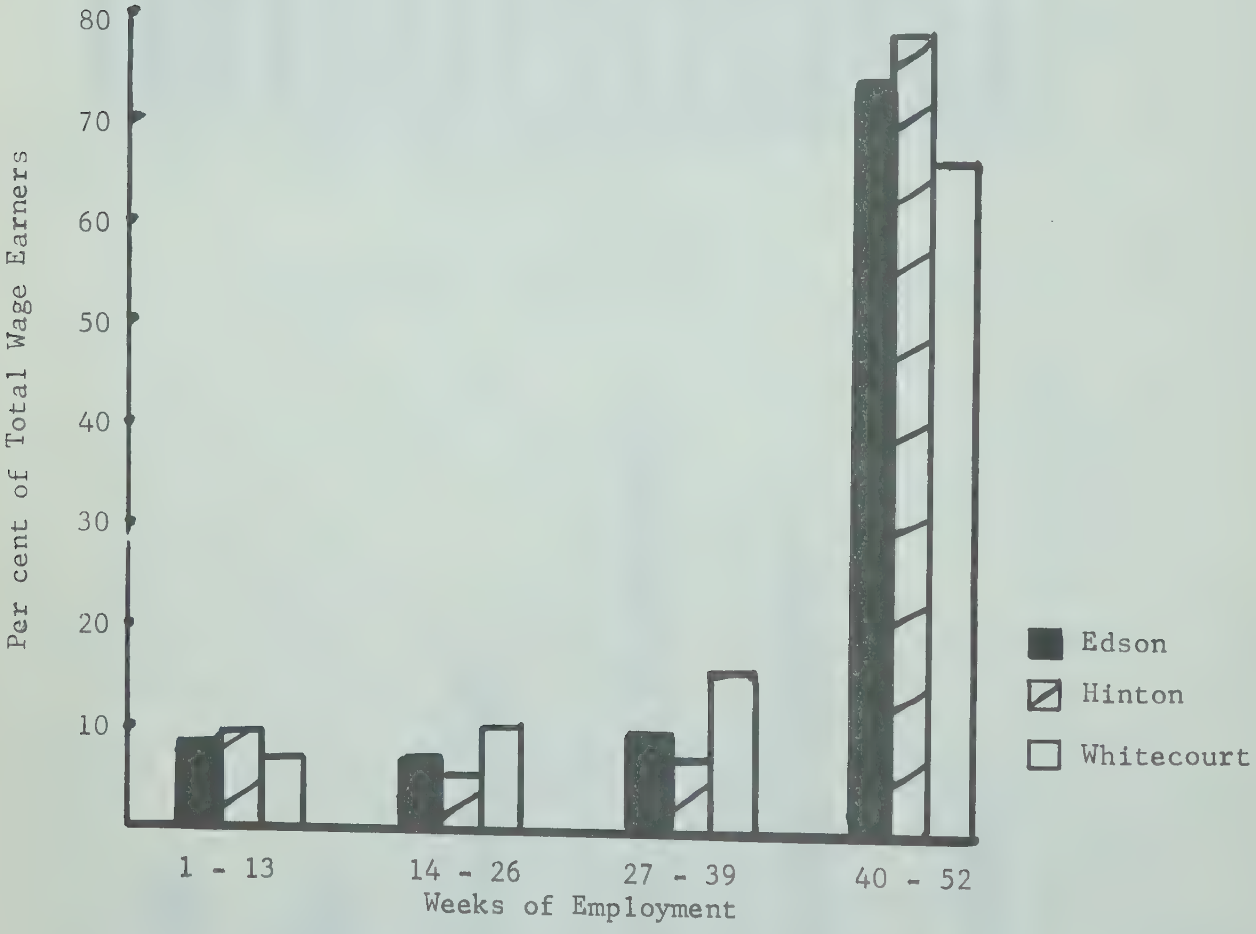
Income and Wage Earners for Towns,[1/] Census Division 14

Wage earners in the towns of Edson, Hinton and Whitecourt, working varying portions of the year, earn widely diverging incomes. The average earnings of male workers was highest in Hinton with $4,461, followed by Edson and Whitecourt with $3,655 and $3,021 respectively. The same order prevails in the number of weeks worked per worker, e.g. in the 40 - 52 week category, 79.4% of the Hinton wage earners were represented. Edson and Whitecourt followed in order with 75.1% and 66.9%. Figures F-3 and F-4 illustrate wage earner data.

Figure F-3

WAGE EARNERS 15 YEARS AND OVER

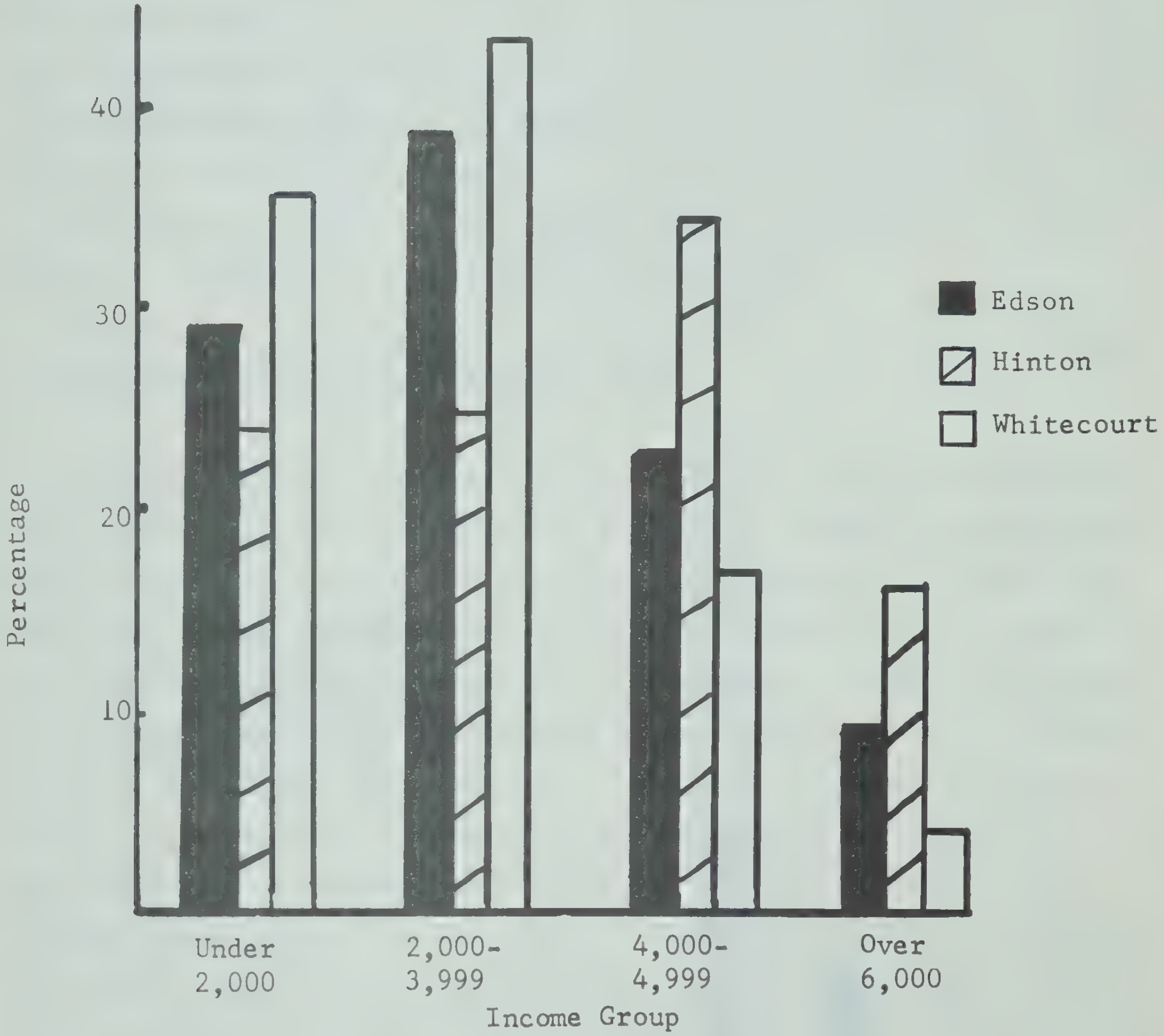
SHOWING WEEKS OF EMPLOYMENT AND AMOUNT OF EARNINGS



[1/] Wage earners who worked for wages or salaries includes wage earners who did not report earnings or weeks of employment or usual hours worked each week; excludes wage earners who did not work for wages or salary during the twelve months prior to June 1, 1961.

Figure F-4

WAGE EARNERS 15 YEARS OF AGE AND OVER SHOWING INCOME GROUP AND AMOUNT OF EARNINGS

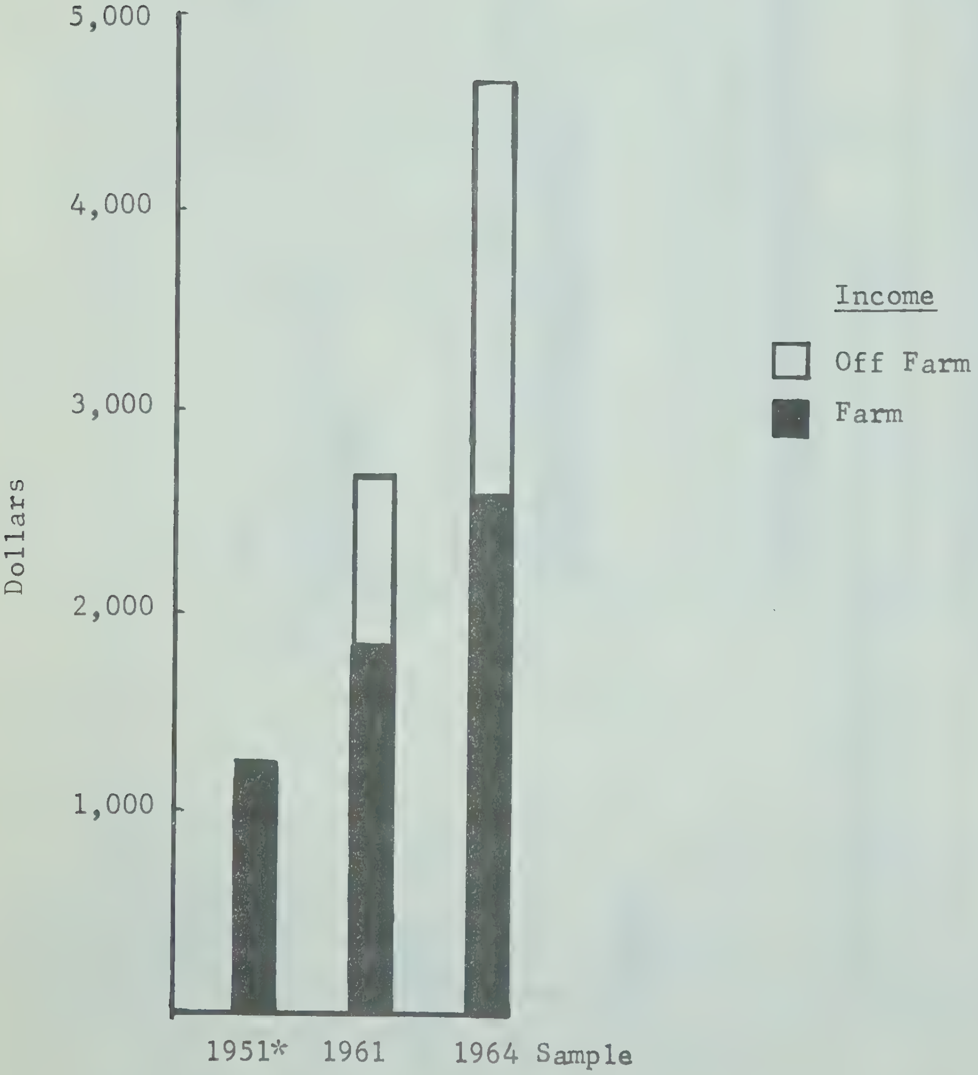


In summary, average non-farm income in the area is higher than other rural areas in the province. This may be accounted for particularly by the fact that a large proportion of the labour force is engaged in well paid primary and manufacturing industries such as oil and pulpwood production. A strong demand for the existing labour supply tends to maintain wages at a high level.

FARM INCOME

The average income of farm operators from both farm and non-farm sources has shown a steady increase over the 1951 - 1964 period. The number of farm operators has steadily diminished over the same era. For example, in 1951, total farm income from 1,345 farmers was $1,681,000, or an average of $1,250 per farm. By 1961, farm income had increased

Figure F-5
AVERAGE FARM INCOME
1951, 1961, 1964



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* Data on non-farm income unavailable.

to $1,825,000 and the number of operators had decreased to 973, an average of $1,876 per farm. The Alberta average was $5,997.

Non-farm income of farm operators averaged $822[1] per farm in 1961 (1951 figure not available) for an average total farm and non-farm income of $2,698 in 1961.

According to a survey[2] conducted in the spring of 1965, average income for farm operators had risen to $4,629 with farm income rising to $2,519 and non-farm to $2,110. The most significant growth occurred in the non-farm income bracket, which almost trebled over the 1961 - 64 period. Figure F-5 portrays the preceding trends.

INCOME FROM SALE OF AGRICULTURE PRODUCTS

Table F-1 lists the value of farm products sold by farm operators in Alberta and in Census Division 14 in 1961. Income from the sale of farm produce is categorized into ten groups, ranging from under $250 to $25,000 or more. A comparison of the Alberta and C. D. 14 census data indicates significant differences. For example, in the $25,000 group, 2.7% of the farmers in Alberta were represented, whereas in C. D. 14 only 0.3% of the farmers were included. A similar relationship existed with only 6.3% of Alberta's farmers in the group under $250 compared to 20.4% for C. D. 14. Furthermore, 76.3% of all the farm operators in C. D. 14 earned under $2,500 from the sale of farm products, over double the corresponding percentage for Alberta. Again, taking the composite group $5,000, only 7% of C. D. 14 farm operators qualified compared to 35.7% for the whole of Alberta.

These trends, plus additional data from the table, indicate that there are marked differences exhibited in the sale of farm products for the two categories. In all categories, except the lower groups $2,500 and under, Alberta figures are much higher than C. D. 14's. In the lower categories, the reverse applies.

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[1] Calculated by multiplying the days of off-farm employment of farm operators by $12.80 (average daily wage rate according to 1960 Department of Labour Survey).

[2] Farm Survey conducted by Farm Economics Branch, Alberta Department of Agriculture.

Gross income from the sale of agricultural products in C. D. 14 has, over recent years, been lower than all other census divisions, except number 9. (Table F-I.) Although successive yearly increases are shown for each division over the 1960 - 1963 period, gross farm income in Census Division 14 remains less than one-half of one per cent of Alberta's total.

Table F-I

ESTIMATED FARM GROSS INCOME BY CENSUS DIVISION, ALBERTA

1960 - 1963[1]

Census Division	Cash Sales Crop Year 1960-61	C. D. As Per Cent Of Province	Estimated Farm Gross Income			
			1960	1961	1962	1963
			- '000 dollars -			
1	23,677,310	5.4	28,091	29,265	34,256	36,033
2	58,546,140	13.3	69,186	72,080	84,371	88,749
3	25,302,720	5.8	30,172	31,433	36,793	38,702
4	15,637,180	3.6	18,727	19,510	22,837	24,022
5	48,753,560	11.1	57,742	60,157	70,414	74,068
6	47,684,130	10.9	56,702	59,073	69,146	72,735
7	31,799,320	7.2	37,454	39,020	45,674	48,044
8	36,670,750	8.3	43,177	44,982	52,652	55,384
9	1,171,020	0.3	1,561	1,626	1,903	2,002
10	46,011,110	10.5	54,621	56,905	66,608	70,065
11	39,834,490	9.1	47,338	49,318	57,727	60,723
12	12,163,950	2.8	14,566	15,175	17,762	18,684
13	22,643,120	5.1	26,530	27,639	32,353	34,031
14	1,825,870	0.4	2,081	2,168	2,537	2,669
15	27,323,140	6.2	32,252	33,601	39,331	41,371
Province	439,043,870	100.0	520,200	541,952	634,364	667,282

Source: Farm Economics Branch, Alberta Department of Agriculture.

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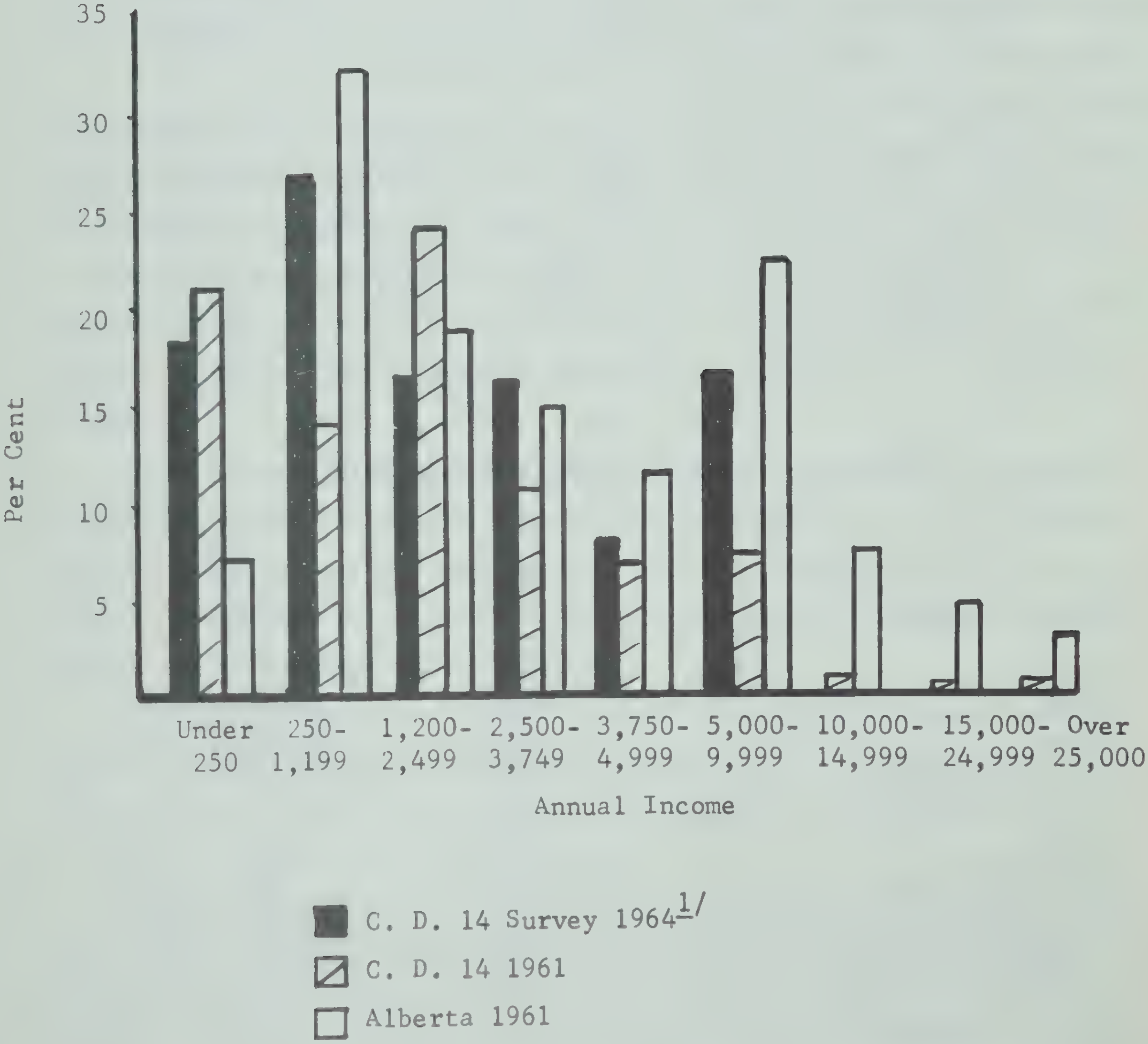
[1] Farm Gross Income of Census Divisions was estimated on the basis of sales of farm products reported in the Census of Agriculture, Alberta 1961.

Figure F-6 represents the percentage distribution of annual gross farm income by income group as reported in the 1961 census and the 1964 Farm Survey. Of particular significance is the fact that gross farm income experienced appreciable gains over the 1961 - 1964 period.

Figure F-6

GROSS FARM INCOME FOR ALBERTA, C. D. 14 (1961)
AND SAMPLE SURVEY OF C. D. 14 (1964)



1/ Income exceeding $9,999 in 1964 survey not indicated in figure.

In 1961, in Alberta, 58% of farm income was derived from the sale of livestock or livestock products, 33% from the sale of field crops and 9% from other sources. Corresponding percentages for C. D. 14 are livestock or livestock products 66%, field crops 18% and other 16%. The 1964 survey revealed changes particularly in the livestock category, increasing to 74% and the other category, decreasing to 6%. Field crops remained relatively stable.

Of the income derived from the sale of livestock or livestock products in 1961, approximately 60% was from the sale of cattle and dairy products. The percentage rose to 72% in 1964. Over the same period swine production fell from 31% in 1961 to 20% in 1964. Other types of livestock contributed minor amounts.

Wheat contributed 21% of the income derived from field crop sales in 1961, increasing to 42% in 1964. Correlative declines in barley, oats, etc. and hay, fodder and root crops between 1961 and 1964 substantiate the change. Table F-II lists the percentage of income derived from the sale of principle farm products.

Table F-II

PERCENTAGE INCOME FROM SALE OF PRINCIPLE FARM PRODUCTS

Kind of Product	Alberta 1961	C. D. 14 1961	C. D. 14 [1/] 1964
Cattle	36.0	27.9	41.5
Hogs	11.2	20.3	14.8
Sheep	0.8	1.8	1.4
Poultry & Eggs	3.1	3.2	2.7
Dairy Products	6.8	12.7	13.6
Wheat	22.8	5.5	11.8
Other Grain	8.9	8.0	6.8
Hay and Fodder	1.1	4.4	1.4
Root Crops	1.9	4.9	0.1
Forest Products	--	3.4	5.9
Other	7.4	7.9	

Source: Census of Canada, 5.3-3, 1961.

[1/] Farm Survey, by Farm Economics Branch, 1965.

Revenue per farm in C. D. 14 relative to that of the province provides an indication of the returns from each type of agricultural production. However, because the inventory per farm varies considerably, the return per animal gives a more realistic assessment of efficiency of production. Each farm in C. D. 14 reporting sales of cattle has an inventory of 25 head compared to 49.5 in Alberta. In other words there were 51% as many cattle on farms reporting cattle in C. D. 14 as in Alberta. Similarly the value of cattle sold per farm reporting sales in C. D. 14 was $846 in 1961 compared to $3,154 for Alberta or 27% of the provincial figure. The discrepancy may be explained partly by the fact that most animals in C. D. 14 are sold as calves and many are of inferior quality.

It is evident that the returns from the sale of cattle is much lower per head in C. D. 14 than in the rest of the province. This is probably due to the fact that most of the cattle sold in the area are calves that are sold as stockers and feeders. With an adequate supply of coarse grains in the general area in most years, it would seem logical to finish these animals to a marketable condition. One of the main reasons that this is not done is that the owners require the revenue to pay operating expenses.

The rates of income from hog sales per farm and the number of hogs per farm in the survey are expected to be closer to unity in comparison to the province,as hogs are usually sold at a uniform or nearly uniform rate. Table F-III indicates that farmers are using the resources concerning hogs comparatively well.

On the other hand, it would appear that the revenue derived from the sale of sheep, horses, and poultry is much less for the farmers in the survey area than their counterparts elsewhere. Presumably efforts directed to these fields could be rewarding.

The results show that the value of field crops has decreased in relationship to total value of agricultural products sold. However, livestock and poultry show a good increase. The remaining category, Other Products, which includes dairy produce, forest products, etc., indicates no change in its percentage between the census and the survey.

Part of the variation in the 1961 and 1965 (sample) figures may be accounted for by the fact that 1964 was a relatively poor year for crop production. Consequently the value of field crops sold would have been lower than average.

Table F-III

RELATIVE INCOME AND INVENTORY OF FARM ANIMALS

Alberta and C. D. 14 - 1961

Commodity	Index of Sales Per Farm Reporting Sales		Index of Inventory Per Farm Reporting	
	Alberta	C.D. 14	Alberta	C.D. 14
Cattle	100	27	100	51
Pigs	100	65	100	60
Sheep	100	35	100	55
Horses	100	42	100	89
Hens & Chickens	100	19	100	53
Turkeys	100	12	100	17

Source: Census of Canada 1961, 5.3-3.

A significant trend is the importance of commercial[1] farmers in the agricultural income picture. Income in 1961 from the sale of agricultural products on commercial farms accounted for 74% of agricultural sales of the whole Census Division. The percentage is more impressive when it is realized that less than half of the operators were designated as commercial farmers.

OFF-FARM INCOME[2]

The income of farmers is derived from the sale of agricultural products and employment of farm operators in jobs off the farm. The following trends are noted:

a. Average farm income of farm operators has doubled since 1951.

b. Average non-farm income of farm operators has almost trebled since 1961.

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[1] Farm operators with agricultural holdings whose sales of agricultural products are $1,200 or over.

[2] Data calculated from 1961 census material and 1965 farm survey tabulations.

c. Average total income of farm operators has almost doubled since 1961.

Most of the income data has been presented in the initial part of this section with the exception of the following information.

Off-Farm Employment

Over the period 1961 to 1964, the percentage of farm operators reporting off-farm work increased approximately from 47% to 64%. Over the same period of time, the average total income per farm in C. D. 14 rose from $2,698 to $4,629. The difference consisted of an increase of $642.40 in average farm income and an increase of $1,262.60 in average off-farm income. The increase in off-farm income almost doubles the farm income figure, resulting mainly from the availability of varied work off the farm.

Additional income figures show that of the 32% of the 1964 sample who reported no off farm work, their average income was $3,832.56, whereas the average income of those who had both farm and off-farm income was $5,009.71. Therefore, it seems obvious that, to an increasing extent, farmers are turning to part time work off the farm in order to supplement their incomes. The availability of jobs in the pulp and construction industries have been factors of primary importance in the establishment of this trend.

In 1961 only 8% of Alberta farm operators who worked off the farm were employed in the woods compared to 24.6% of Census Division 14 farm operators. This significant difference is a result of the convergence of an agricultural and a forestry economy in this area and the accompanying greater availability of jobs in the woods. By 1964 the sample indicated that the percentage for C. D. 14 had risen to 41.9, an increase, due, to a large extent, to the expanding production of the pulp mill and the growing awareness of employment opportunities.

Another substantial difference appears in the comparison of percentages of farm operators engaged in part time agricultural work on other farms. In Alberta in 1961, 14.3% were employed in such work compared to only 6% of C. D. 14 farm operators. A possible explanation lies in the degree of consolidation of farms in the province compared to that in Census Division 14.

"Special" Farms

In order to determine some guidelines regarding the number of farmers in the area who are hard pressed financially, some special tabulations from the Dominion Bureau of Statistics for the year 1961 were used. These figures were then compared to 1964 sample figures to determine whether there had been any shift of conditions. Basically an attempt was made to delineate the number of farmers who:

a. had gross sales of agricultural products from $250 to $2,500,

b. had a total capital investment of less than $25,000,

c. worked off the farm for less than one month a year, and

d. were under 55 years of age.

The following table isolates those full time farms with low capitalization and low agricultural sales.

Table F-IV

SPECIAL FARMS IN C. D. 14 BY PERCENTAGE

1961 and 1965

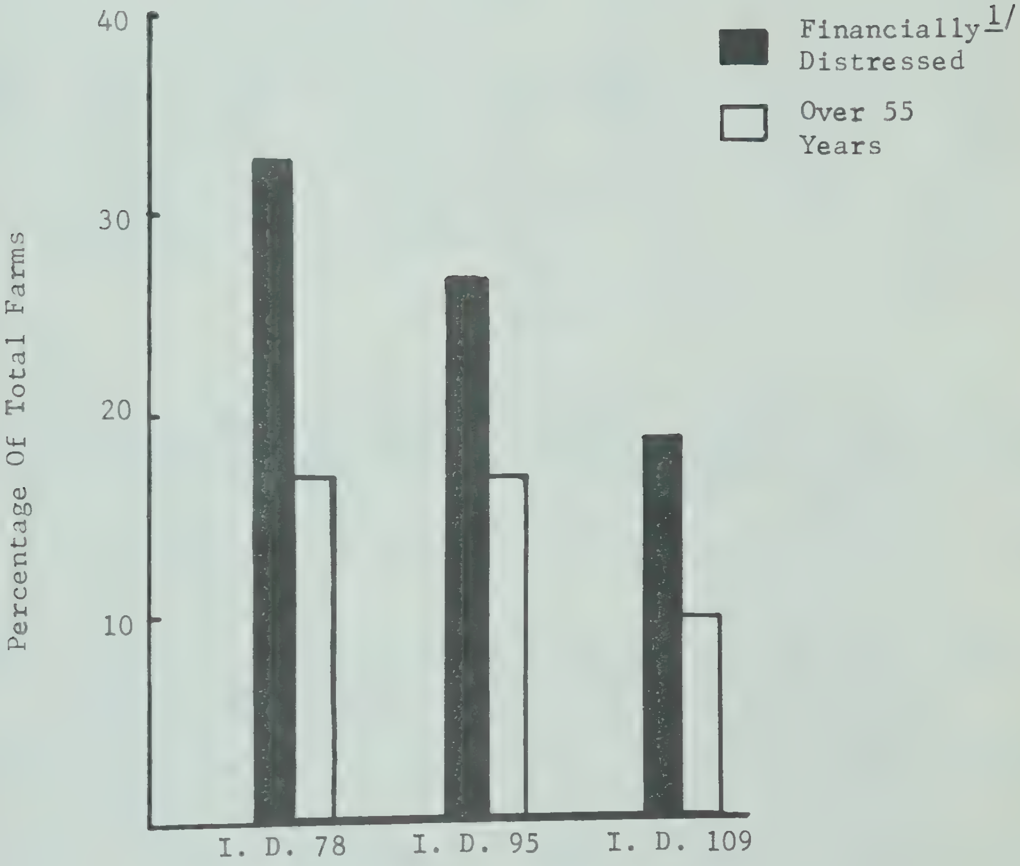
	Total Farms	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
Alberta	73,212	93.5	46.7	34.9	29.3	65.0	55.2
I. D. 78	596	80.4	83.1	72.7	68.1	60.7	47.5
Sample	26	100.0	46.2	57.7	38.5	40.0	25.0
I. D. 95	213	77.3	79.9	69.8	65.7	51.4	36.8
Sample	11	81.8	67.7	77.8	66.7		
I. D. 96	2	100.0		50.0			
I. D. 109	162	76.5	69.4	62.1	56.5	42.9	46.7
Sample	13	75.9	50.0	40.0	40.0	25.0	
Total C.D. 14	973	79.6	50.0	70.3	65.5	56.2	45.2
Sample	50	90.0	51.1	57.8	44.4	25.0	20.0

Source: Census of Canada 1961, and Farm Survey 1965.

FINANCIALLY DISTRESSED FARMERS AND THOSE OVER 55 YEARS OF AGE

Census Division 14

1961



1/ Financially distressed farmers refers to "special".

Table F-V

NUMBER OF "SPECIAL" FARMS IN C. D. 14

1961

Improvement District	Total Farms	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
78	596	479	398	348	326	198	94
95	213	169	135	118	111	57	21
96	2	2		1			
109	162	124	86	77	70	30	14
Total	973	774	619	544	507	285	129
Alberta	73,212	68,438	31,529	23,235	20,169	13,103	7,236

Source: A. R. D. A. Special tabulations.

Group 2 - Total farms less residential with sales more than $250 per year.

Group 3 - Number of farms in group 2 with a capital value of less than $25,000.

Group 4 - Number of farms in group 2 with gross from sales of less than $2,500 per year.

Group 5 - Number of farms in group 2 with capital value of less than $24,950 and gross sales of less than $2,500 per year.

Group 6 - Number of farms in group 5 in which the operator worked off the farm in part time occupations for fewer than 25 days in a year.

Group 7 - Number of farms in group 6 in which the operator is less than 55 years of age.

Of the 129 "special" farmers listed in the 1961 data, all except nine resided on their farms from nine to twelve months. Seven of the nine were non-resident farmers. The distribution is shown in Table F-VI.

Table F-VI

"SPECIAL" FARMERS BY RESIDENCE

1961

Improvement District	Number of Special Farms	RESIDING ON FARM 8 - 12 Months	4 - 8 Months	1 - 4 Months	0 Months
78	94	88	0	1	5
95	21	19	0	1	1
109	14	13	0	0	1
Total	129	120	0	2	7

Source: Special A. R. D. A. tabulations.

CONCLUSIONS

Of the sample farms 90% had sales of more than $250 while 59% had gross farm sales of less than $2,500. The comparable figures for Census Division 14 are 80% and 70%. This indicates that since 1961 farm sales have increased in the area.

The percentage of farms with a capital value of less than $24,950 have decreased by almost 30% since 1961. These percentages however, do not necessarily indicate that the farms in the area have generally improved but probably mean that the value of land has increased, raising the capital value of the farms. This also accounts for the lower percentage of farms with a capital value of less than $24,950 and gross sales of less than $2,500 in 1964 than in 1961. However, the increase in value of land probably cannot account for all the difference between the 1961 and 1964 figures. Instead this would indicate that there has been some improvement in the farms as shown by the increase in farm sales.

Of the farmers whose gross farm sales were less than $2,500 and whose capital value was less than $24,950 (those in group 5) in the 1964 sample, only 25% worked off the farm less than 25 days while in 1961 the percentage was 56. This indicates that a greater percentage of farmers were working off the farm in 1964 than previously. This is probably due to greater employment opportunities in the area.

The percentage of farm operators in the 1964 sample working off the farm less than 25 days who are under 55 years of age is much smaller than in 1961. It appears then, that the larger proportion of part time farmers are over 55 years and are semi-retired.

Forty per cent of farm operators in the sample whose gross farm sales are less than $2,500 and whose capital value is under $24,950, who work more than 25 days still have a total income of less than $2,500.

All of these farmers are located in Improvement District 78, an area relatively isolated from the pulp mills, construction and other industries which accounts for the lack of highly paid employment. Of these farmers 88% are over 55 years and near retirement but 12.5% are under 55 and would greatly benefit from an improvement program for increased production, better farm management or relocation.

G. MARKETING

Marketing, so far as this report is concerned, is a brief description of the marketing facilities of C. D. 14 and does not include a length dissertation on the various institutions in the marketing channels of the many products produced in the area.

The sale of oil and natural gas is governed to quite an extent by the Oil and Gas Conservation Board. These products are segments of a highly concentrated industry and the marketing strategies of the managements are of little or no concern of local Rural Development Committees. Pulp production is also a highly concentrated industry and the marketing of this product is also beyond the influence of regional groups.

On the other hand, livestock products and perhaps lumber, could be directly influenced by the actions of local committees. Furthermore, producers of these products have little market power and could use the influence of a local organization to assist in improving the marketing facilities.

The following paragraphs briefly describe some aspects related to the marketing of the major products in Census Division 14.

Non-Agricultural Products

Gas and Oil

Oil and gas are marketed outside the area, much of it being transported by pipeline.

Woodpulp

North West Pulp and Power is the largest single firm and accounts for practically all of the manufactured goods exported out of the area. It produces a high quality product, Alberta Hybrite, which is marketed in Eastern Canada and Eastern United States by rail. A similar plant, to be built by MacMillan and Bloedel in the Whitecourt area, will enhance the position of this industry.

Sulphur

Sulphur is currently produced by Pan American and Texas Gulf Sulphur of Windfall. In the near future the Hudsons Bay plant will be in operation at Edson. The product is shipped by rail and sold primarily to buyers in the Eastern United States and Canada, and for export.

Limestone

Limestone is produced at Cadomin and is shipped by rail to Edmonton. Production changes according to the seasonal demand.

Coal

Most of the coal is used locally and is hauled by truck. Some is shipped out of the area by rail.

Peat Moss

A number of plants are in operation or will begin in the near future. The largest market is located in California with about 40% going to various places in Alberta, British Columbia and Saskatchewan.

Other Exports

Other exports are scrap metal, clay, bentonite, mine and mill products, logs, poles etc. chemicals and railroad ties. These, however, are quite insignificant in volume of sales.

Agricultural Products

Livestock

It is impossible to accurately determine the number of livestock sold in the area, for the only accurate figures available are numbers of livestock transported by commercial carriers. Livestock reaching the terminal market in Edmonton is recorded as being received from the Agricultural Reporting Area No. 6 which includes a much larger territory than C. D. 14.

A survey of commercial carriers located in C. D. 14 reveals that in 1963 the total number of livestock hauled out of the area was:

Cattle - 4,500
Hogs - 1,800
Sheep - 1,375
Horses- 30

Approximately 50%[1] of the cattle and sheep marketed are hauled by commercial livestock haulers located in the area. On the other hand, hogs are hauled primarily by other means, since the numbers transported by commercial truckers would be less than 20%[1] of the total production. This is an unlikely situation and one that bears further investigation.

There are no public markets for livestock in the area and only one licensed resident cattle buyer

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[1] Estimated from comparisons with total production figures in the 1961 Census.

Dairy Products

Although the area is serviced by several Edmonton dairies, there is one dairy located in C. D. 14, the Valley Creamery, at Evansburg, which handles, by a wide margin, the largest portion of dairy products and production. Although dollar values cannot be assigned to the Evansburg dairy production, percentage changes indicate trends in the past few years.

Commodity	1958 - 64	1963 - 64	1961 - 64
Milk (sales)	+ 2%	No change	+ 12%
Butter (production	+ 55%	+ 16%	No change
Eggs (production)	Not Available	- 50%	No change*

* NOTE: Egg prices fluctuate very widely making average prices less meaningful.

Source: Mr. Smith, Manager of Evansburg Dairy.

Sixteen milk producers, working on a quota basis, supply the Evansburg Dairy with the total amount of fluid milk. This constitutes 100% of milk production for the area. There are approximately 550 cream producers who ship regularly to the Evansburg Dairy, contributing about 60% of the total creamery production for the area. However, only one-half of the producers reside in C. D. 14. The remaining portion of the total production, 40%, is shipped to Edmonton dairies.

The Evansburg Dairy is also the principle distributor of dairy products in the area conducting both wholesale and retail operations. The following table indicates the estimated extent to which the Evansburg Dairy satisfies the demand for dairy products in the various communities in the area.

Producers who sell to the dairy do so for two fundamental reasons:

1. A local organization allows speed and convenience of pick up, delivery and payment which outside organizations cannot match.
2. Transportation costs to markets outside the area are higher.

However, there are problems of supply in the area, e.g. the supply of cream tends to be excessive in summer and inadequate in winter, etc.

Table G-I

ESTIMATED PERCENTAGE OF MARKET DEMANDS MET BY EVANSBURG DAIRY - 1961

Market	Per Cent Of Market
Jasper	75
Hinton	90
Edson	50
Lodgepole	70
Drayton Valley	50
Whitecourt	50
Sangudo & Mayerthorpe	50
Evansburg	70

Source: Mr. Smith, Manager, Evansburg Dairy.

Field Crops

The estimated marketing of cereal grains in the area includes approximately two-thirds of the total wheat production, a very small percentage of the oats, and one-third of the barley. Hauling is performed primarily by farmers themselves.

A major problem to farmers in the rural areas is the lack of market facilities. There are four grain elevators in C. D. 14, located at Evansburg, Wildwood, Peers and Blue Ridge, however, the elevator at Blue Ridge has been closed, except for the storage of grain, since 1960. At Peers, the elevator was sold by the U. G. G. to a local co-operative. Deliveries to these two elevators have been inconsistent and low in volume, whereas the elevators at Evansburg and Wildwood have had larger handlings.

An undetermined portion of deliveries to elevators at Evansburg and Blue Ridge would have originated from outside the area. Similarily, a small fraction of the deliveries at Mayerthorpe and Greencourt have come from inside C. D. 14.

At the present time 75% of the grain delivered to the elevators is wheat. One reason for this appears to be due to a lack of awareness of the benefit of growing other crops for immediate remuneration. It appears that with proper crop rotation much of the high land in the area is suitable for growing a grade 3 or 4 wheat. It is suggested that with the present quota restrictions on the volume of grain delivered per farm unit that farmers in the area should investigate the possibility of growing more flax, rape seed, legume seed and coarse grains. In the past few years it has been relatively easy to dispose of rape seed and flax seed production. The area is well suited for legume seed production. At present, certain legumes such as sweet clover demand an excellent price on the market.

A ready market appears to be available for high quality hay in the farming area to the east and in the pulp timber areas around Hinton. The production of high quality hay is inhibited by adverse weather conditions. Moisture is prevalent during the haying season.

For more information on the kinds of crops sold, refer to "Income" section.

TRANSPORTATION

The turn of the century witnessed several important changes and developments in Census Division 14. The west was opening to settlement on a relatively large scale. The coming of the railroad served to facilitate exploration, settlement and transportation within the area.

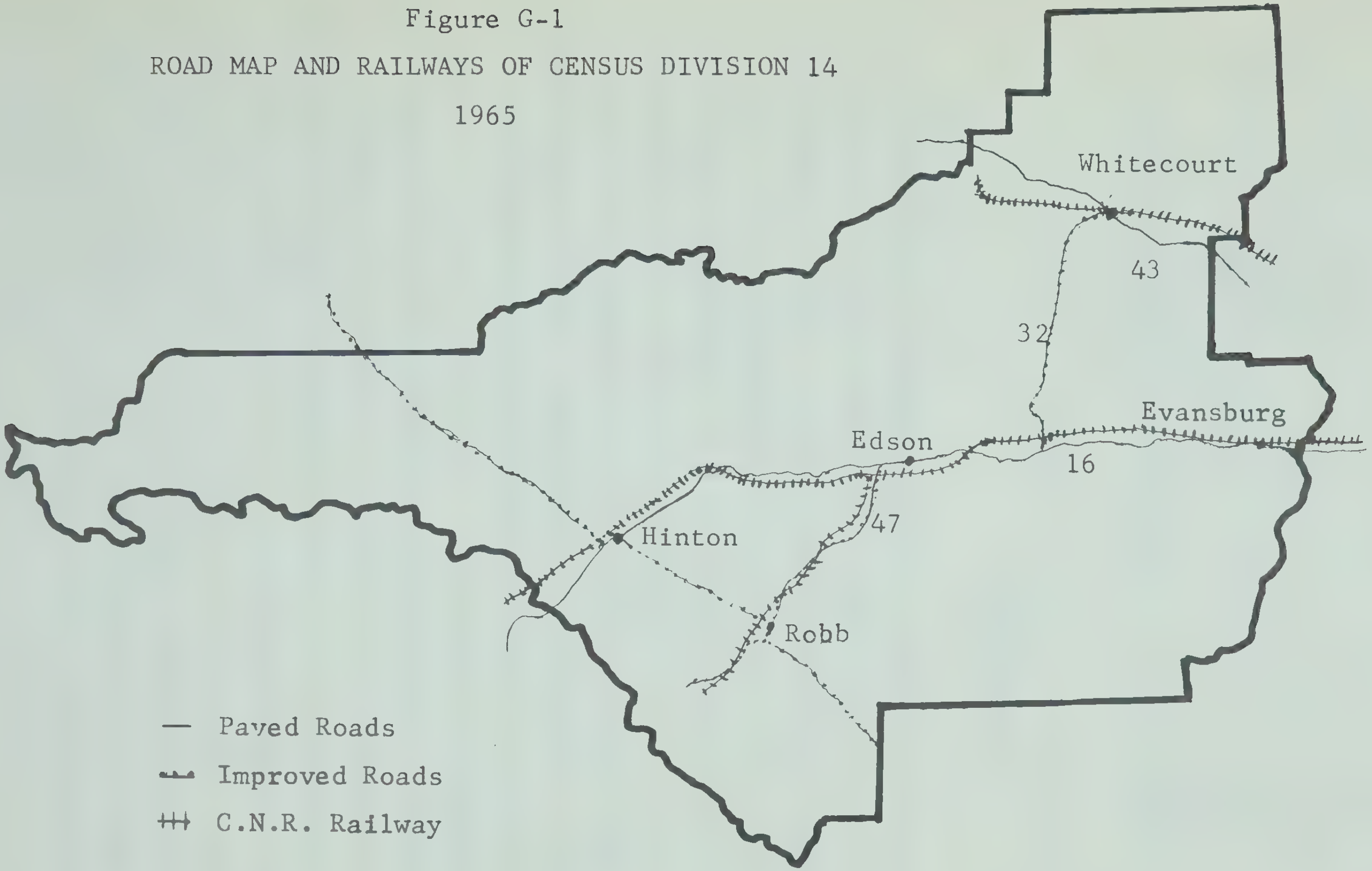
The construction of the railroad was the most important change factor during this period, for it was not only the major means by which people came into the area, but a determining factor in the eventual location of major rail and highways. A map of Census Division 14 showing the major rail and road routes indicates, with few exceptions, that the railroad highway pattern is remarkably analagous.

The early 1900's marked the extension of the Grand Trunk Railroad (presently the C.N.R.) west of Edmonton into British Columbia. As construction progressed, permanent settlements developed at various locations on route, particularly at Evansburg, Wildwood, Edson and Hinton. Another major center, Whitecourt, originated approximately at the same time, however, initial development in this case, preceded the railroad. For several years the railroad served the major transportation and supply needs for the various settlements. However, improved transportation facilities and

Figure G-1

ROAD MAP AND RAILWAYS OF CENSUS DIVISION 14

1965



technological innovations in industry and agriculture brought about changes in both the manner and scope of this medium, e.g. highways, motor vehicles, etc.

Transportation facilities are required for service industries, agriculture, lumber operations, gas and oil industries and woodpulp and mining interests. Generally, the area is served by bus, rail, commercial trucking, private trucking and contract carriers. Details of the number of firms, types of equipment and commodities hauled are shown in Table G-1. The following notes describe the types of carriage.

Bus

Where speed of transit is required, small package freight is moved in the area by bus. Regular passenger service is also provided by this transportation medium.

Rail (Carload)

The major towns and industries in the area are served by rail and the frequency of service seems adequate for the present volumes involved. Carloads of fertilizer, farm machinery, building materials, etc. are handled at normal rates considering geographic location. Lumber rates are related to the basic lumber scales. Movements of gas and oil outbound are generally by pipe line, whereas inbound, this product is primarily moved by truck. Sulphur, a by-product of this industry, is moved to export markets at rates grouped from all Alberta origins. Woodpulp is moved via rail to the U.S.A. and Eastern Canada at rates related to the U.S. rate structure. Rates on coal are reasonable and move on the normal mileage scales. Limestone rock rates are related to other movements in Western Canada.

Commercial "for hire" Trucks

"For hire" trucking firms operate throughout the District. Considering the volumes involved, service appears to be adequate. Truck rates suggested for normal movement, (listed in Table G-3) vary considerably because they are not filed or controlled. The actual rate charged is "what the traffic will bear," considering operating and competetive factors, therefore, rates in many of the towns vary from day to day and from customer to customer.

Private Motor Truck

Vehicles owned by various types of businesses such as wholesale firms, pop manufacturers, bread companies and oil companies, handle a considerable volume of produce within the area. No rates are noted as this type of trucking operation is part of the firms' distribution cost.

Contract Haulers

These haulers are specialized in their operation moving pulpwood, oil field equipment, peat, gasoline, etc. to or from specific locations. Rates are a matter of agreement between the contracting parties.

H. INDUSTRIAL DEVELOPMENT

ECONOMIC BASE

Usually industry is classified as primary, secondary or tertiary according to the kind of good or service produced and the stage of production. These are covered later in this chapter. In addition, industry may be classified, firstly, into those industries which provide the basic employment and income on which the rest of the local economy depends and secondly, the other industries in the economy which depend on the basic wealth producing sector. Basic wealth producing industries produce goods or services for markets outside the area. On the other hand, the second group is primarily engaged in producing goods or services demanded by persons employed in the first group and consequently produce for the local market. For instance, pulp is produced in the area for sale in other parts of the world and is a basic wealth producer for the "export" market, whereas, the local storekeeper, who sells to the employees of the pulp enterprise, serves the "domestic" market. Export market in this sense refers to a market outside Census Division 14.

The primary industries are mainly export, but may also serve the domestic market in some cases. Some of the fluid milk produced in the area may be processed and sold to local residents and consequently this portion cannot be classified as an export. Similarly, some segments of the secondary industry, such as bakeries, serve the domestic market, although the majority of manufacturing (pulp) is directed to export markets. Again the tertiary industry may be subdivided into the two classes according to whether the goods or services marketed are consumed by local residents or outsiders. Recreation and tourism are export activities if the persons using the facilities come from other areas.

Table H-I shows the employment in the various industries as classified by the Standard Industrial Classification. In each industry, an estimate was made of the percentage of the labour force that was engaged in the export sector. The industry with the largest number employed in the export category may be classified as the prime mover of the local economy. It is evident that in 1961, the forest industry was the prime mover.

In order to indicate the trend of the economy in the future, the labour force by industry and by export or domestic activity was estimated for 1975. In some instances, little information was available on which to base an estimate. No major change in technology was taken into consideration, although new methods of operations will likely be introduced before 1975 and would alter the requirements of the labour force.

The implications of the export domestic activity concept is that for each additional job created in the export category, a fairly constant ratio of jobs are created in the domestic sector.

It is noteworthy that in 1951 there were 2.5 persons employed in the export sector for every one person in a domestic activity. By 1961 the ratio had changed to 1.5 to 1.0. The ratio projected for 1975 is 1 to 1. This continuing change results from the greater demands for goods and services within the area, as well as increased productivity in the export sector.

In the long run the growth of the area is dependent on the number of workers employed in the basic sector.

The following paragraphs provide a brief explanation of the industrial classifications of Table H-I and in some cases, include comments on potential development.

AGRICULTURE

While the number of farms are expected to drop below 700 by 1975, the number of workers including owners, other members of families working on farms, and hired hands are estimated at 750. This is based on the assumption that the definition of a farm as an agricultural holding of one acre or more,with an annual income from the sale of agricultural products of $50 or more, will remain constant.

The projected figure is somewhat misleading because a portion of the total will be made up of residential farmers,who in a real sense are not farmers.

Table H-I

ECONOMIC BASE EMPLOYMENT DATA FOR CENSUS DIVISION 14

	Employment 1951	Employment 1961	Change 51-61	Employment (estimated) 1975	Export Employment (estimated) 1951	Export Employment (estimated) 1961	% Export Employment (estimated) 1961	Export Employment (estimated) 1975
Agriculture	1,345	955	-390	750	1,210	860	90	675
Forestry	448	858	+410	1,400	439	841	98	1,372
Fishing and Trapping	57	11	- 46	10	55	11	98	10
Mines, oil and gas	916	451	-465	500	897	442	98	490
Manufacturing	603	861	+258	1,800	590	844	98	1,764
Construction	257	621	+364	1,000	128	311	50	500
Transport, Communication & Utilities	652	796	+144	1,500	326	398	50	750
Trade (Wholesale & Retail)	362	721	+359	2,000	18	14	2	40
Finance, Insurance & Real Estate	36	77	+ 41	140	0	0	0	0
Community, Business & Personal Services	679	948	+269	3,000	170	237	25	750
Public Administration		242		350	0	0	0	0
Total	5,355	6,541*		12,450	3,833	3,558		6,351

Ratio of export to domestic employment: 1951 = 2.5:1, 1961 = 1.5:1, 1975 = 1:1

* Total labour force includes persons not reporting industry. These figures are 6,796 for 1951 and 6,716 for 1961.

Source: Census of Canada, 1951, 1961.

The proximity to the industrial labour markets, the rapid increase in the price of land and the favourable tax base will encourage the retention of land by the part time farmer.

Also included in the projected figure are persons serving the agricultural industry such as veterinarians.

FORESTRY

Employment in forestry will increase with the establishment of a pulp mill at Whitecourt, although it is anticipated that some jobs will disappear when lumber operators presently cutting in the pulpwood leases or reserves complete their operations. However, additional employment in the industry will occur when other kinds of forest operations are initiated in the next few years. The introduction of new technology in cutting or felling trees or in transportation may result in modifications to projected figures.

MINING

Mines and quarries include the mining of coal, limestone, gypsum etc. petroleum and gas wells, natural gas processing plants, oil drilling and exploration, and peat moss mines. The development of mines and quarries may be accelerated if markets are improved or if new methods of conducting operations are developed. The influence of the railroad into the north-west from Solomon is unknown at the present time. However, it is anticipated that coal mining will be resumed and peat moss mining will be expanded, whereas, oil exploration and drilling will decline. Mining of other industrial minerals may also increase. The number employed in mining will probably increase even though the 1961 figure includes a large number engaged in oil exploration, a sector which has declined recently.

MANUFACTURING

Manufacturing in the area includes the pulp mill, planing and saw mills, the dairy, bakeries, the newspaper, and other small enterprises.

It also includes establishments that might be engaged in the manufacturing of petroleum and coal products such as coking plants, fuel briquettes, road emulsions and roofing compounds.

The projected figure of employment in the manufacturing allows for modest growth in addition to the expanded labour force required for the pulp mills.

CONSTRUCTION

Building, highway and street construction are included in this category as well as construction of projects such as gas lines, telephone lines, dams etc. Contractors engaged in general maintenance and repair e.g. carpentery, electrical work, painting etc. are considered to be in the construction industry.

The construction of industrial plants and residences will accelerate rapidly in the immediate future but may decline by 1975. On the other hand the employment in maintenance and repair will expand steadily.

TRANSPORTATION, COMMUNICATION AND UTILITIES

Transportation, communication and other utilities include air, water, rail and road transportation, as well as pipeline transport, taxi cabs, and touring agencies. Employment in this category is expected to double due to the increase in physical volume of production, the resources railroad, and larger quantities of goods for domestic consumption.

TRADE

Trade includes both retail and wholesale trade. With larger populations this sector will grow. Furthermore as the area matures, a greater variety of goods will be offered locally which in turn will accelerate the increase in labour force.

COMMUNITY, BUSINESS AND PERSONAL SERVICE

Community, business and personal service includes a large portion of the domestic employment such as schools, health and welfare services, doctors, dentists, nurses, a wide range of recreational services, accountancy, and legal services, etc. Personal services include a variety of establishments such as hotels, restaurants, beauty and barber shops, cleaners, fishing, hunting and tourist guides.

Recreation and tourism will be the primary export activity in this sector. The potential for development of recreation and tourism dictates an increase in employment.

Since the turn of the century, statistics have indicated that the percentage of the national labour force engaged in providing services is increasing. Following this trend and because of the rapid increase in the export sector, it is anticipated that the rate of growth of employment in community, business, and personal services will exceed the rate of growth of the total population in the area.

PUBLIC ADMINISTRATION

Similarly the growth of the area will result in more persons employed in public administration at both the local and provincial levels of government. This category includes persons employed by governments at the federal, provincial and local levels as well as those engaged in defence.

INDUSTRIAL DEVELOPMENT

The industrial development of the survey area departs abruptly from the typical model found in many other rural areas and certainly from the industrial city. The development is centered entirely on the use of the vast supply of natural resources but comparatively little on agriculture. Moreover, a large proportion of the income received from the sale of primary products does not return to the area directly to stimulate local economic activity. This applies particularily to the petroleum industry after the exploration phase of development has been completed. Consequently, the aggregate production of natural resources does not accurately reflect the welfare of the local residents.

The prime reason for the activity within the area rests on the development of the natural resources. These resources are practically all exported, while the goods and services used for the production of the resources are largely imported.

Trends are shown on the three sectors of the economy which utilize resources, labour and capital. These are:

1. Primary Industries,
2. Secondary or manufacturing industries,
3. Tertiary or service industries.

It is characteristic of the area that the majority of the scarce factors of production are used in the primary and tertiary industries.

Primary industries include forestry, mining, agriculture, gas and oil. Primary manufacturing has been included in the secondary industries.

The secondary industries include manufacturing and construction.

Tertiary or service industries refer to the non-goods producing sector of the economy, including transportation, communication, trade, finance, insurance, real estate, community business, personal services and public administration.

PRIMARY INDUSTRY

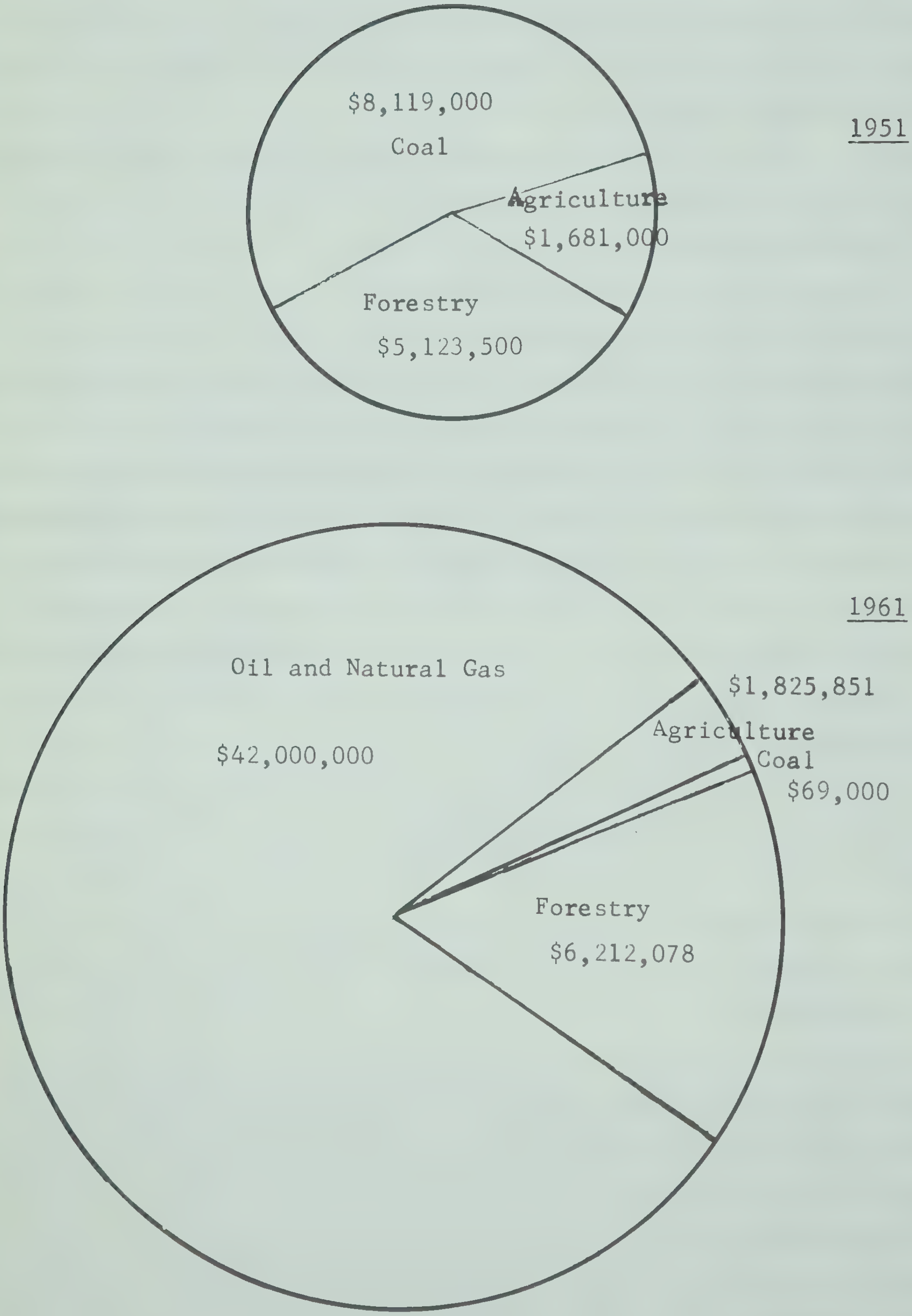
This topic has been dealt with to some length in other sections of this report. However, an indication of the relative magnitude of each sector is appropriate.

An indication of the total production of primary products is illustrated in Figure H-1. The value of the production increased from approximately 15 million dollars in 1951, to 50 million dollars in 1961. This total will be considerably higher today with the advent of greater sales of petroleum products.

Within this decade the value of agricultural products showed only a very slight increase but as noted in another section, this was accompanied by a reduction of about four hundred farmers. The value of forest products sold also showed a slight increase, owing to the fact that in 1951 the

Figure H-1

PRIMARY INDUSTRY



forest economy was primarily based on the production of lumber and ties, with lumber accounting for approximately 3 million dollars and ties comprising about 2 million dollars. In 1961 the total production of ties and lumber was reduced to 1.33 million and most of the balance was made up by the production of pulp.

Similarily there has been a large decline in the production of coal, falling from 8 million dollars in 1951 to an insignificant amount in 1961. Finally the largest production of all is made up of oil and gas in 1961, whereas these products were not being produced in 1951.

Not shown are figures on the production from other miscellaneous enterprises. However, these were small and cannot be accurately determined. For instance, a small quantity of furs would have been produced but the quantity and value cannot be obtained. Similarly the volume of fish produced, while difficult to determine accurately is estimated to amount to approximately 0.3% of the commercial production in the province.

Table H-1 indicates the proportion of commercial fishing done in C. D. 14 compared to that of the province. Figures indicate that commercial fish production is practically non-significant for the area, never reaching over 0.5% of the provincial total for the past several years. Revenue, over the same period of time, also shows a general decline. Table H-2 lists the various revenue from commercial fishing. Revenue in 1963 amounted to only $2,496.18 compared to the high of $9,856.93 in 1960.

The major fish producing water areas with production figures are given in Table H-3. Commercial production of fish in Chip Lake exceeds the total produced in the rest of the area.

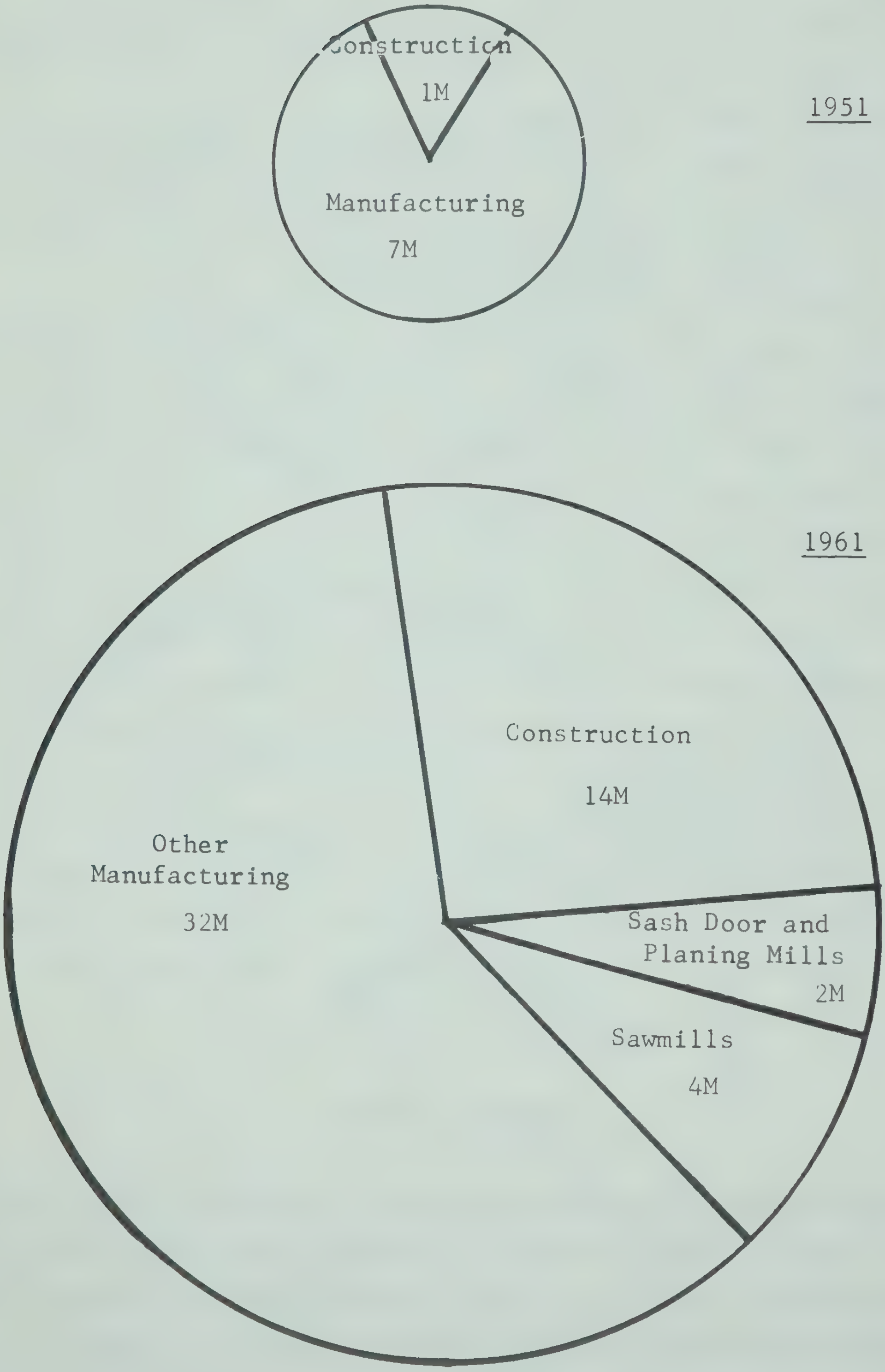
SECONDARY INDUSTRY

Manufacturing and construction are the two main kinds of enterprises included in this section, as per the Standard Industrial Classification.

Manufacturing in C. D. 14 has increased markedly in recent years with the advent of the North West Pulp and Power Company at Hinton. It is estimated that this company contributes approximately 85% of all the manufactured products in the area. The bulk of the remainder is made up by sawmill and planing mill operations.

Figure H-2

SECONDARY INDUSTRY



Selling value of manufacturing and value of construction in millions of dollars.

The value of building construction, highway and road maintenance along with special projects such as the mill at Hinton, has also increased rapidly in recent years. While the exact figure of the value of construction is unavailable, it is estimated that this figure increased from one million dollars in 1951 to 14 million dollars in 1961. It should be pointed out that the sulphur extracting plant at Windfall contributed approximately $10 million to the 1961 figure. Thus the output of the secondary industry for these years is indicated in Figure H-2.

There appears to be ample opportunity for the expansion of the manufacturing sector of the economy. In addition to a proposed pulp mill at Whitecourt, numerous other enterprises may eventually be located in the area. Among these is a plant to utilize the residue of the tree after the lumber is removed (it is estimated that only 41% of the tree is used). Plants to use by-products of the petroleum industry, an alfalfa dehydrating plant, the use of coal for coking, fertilizers, or other uses are possibilities. The expansion of the peat industry, pressure treating of fence posts and rails, and construction of miscellaneous small wooden structures or buildings appears feasible. With the vast store of resources, the potential for the establishment of secondary industries appears to hinge on the development of new technology, adequate markets, and the boldness of the entrepreneur.

CONSTRUCTION

There is little reliable data pertaining to the construction industry in C. D. 14. The Dominion Bureau of Statistics, Ottawa, publishes information on the value of building permits issued in C. D. 14 but it must be noted that hydro-electric developments, pipe lines, and highways do not require building permits. Also in certain instances, large industrial plants have been constructed outside the boundaries of an area issuing building permits and the value of the construction is not recorded. The exclusion of these items from the data on the construction industry in C. D. 14 means that it is impossible to utilize the dollar value of building permits as an accurate gauge of economic activity in the area. At best the available data can be used only as a rough indicator of the contributions to the economy of construction.

A number of major projects have been erected in the last decade. First a pulp mill was constructed at Hinton followed by pipe lines, new roads and gas processing plants at Windfall and Edson.

The future appears promising for the construction industry. A pulp mill is proposed for the Whitecourt area; a new railroad is planned as well as probably extension to existing gas processing plants.

TERTIARY OR SERVICE INDUSTRIES

One of the most important changes that has occurred throughout the last 100 years of Canadian economic development has been the continually increasing proportion of the total Canadian labour force employed in the service industries. The census indicates that in 1951 approximately 37% of the total Canadian labour force was engaged in the service industries. On the basis of the past trends it is suggested that at the present time this proportion is becoming increasingly larger. The trends present in the data collected for the province and for the project area (C. D. 14) would appear to substantiate the national trend. In effect, in C. D. 14 between 1951 and 1961 the number of employees per total population engaged in the service industries1/ increased not only due to the growth of more service outlets but because there was a greater percentage of workers employed in these outlets.

As was indicated in the section dealing with the economic base, it is anticipated that the percentage of the labour force engaged in the tertiary industries will increase substantially in the next few years.

The ratio of the labour force in the "export" classification, which in C. D. 14 includes most of the workers in the primary and secondary

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1/ Note that the D.B.S. information provided in 1951 was based on Census Division 12 while the 1961 information was based on C. D. 14. It is not possible to reconcile the information for either 1951 or 1961 on a constant basis because the D.B.S. does not present the required information on the basis of reasonably small areas. The only area where information has been provided on the basis of enumeration areas is in the Agricultural sector. The question which must be asked is, "Why does the D.B.S not reconcile the data published in various census years on various census divisions with the data and areas which has preceded it?" If it is desirable to be able to compare the data provided in the national accounts over a period of time, surely it is desirable to be able to compare the data provided for census divisions in Alberta over a period of time.

industries to the "domestic" classification has changed over time from 2.5:1 in 1951 to 1.5:1 in 1961 and is estimated to be in the neighborhood of 1:1 in 1975. The composition of the domestic classification is made up largely by workers in the tertiary industries. Accordingly the relative importance of it to the local economy becomes greater.

There are three sections of the service industry: retail, wholesale and "services", for which reasonably reliable data is available. The term Service or Tertiary industry used in this report refers to the non-goods producing sector of the economy, while the term "services" as used by D.B.S. refers primarily to personal services. D.B.S. does not provide information on the government or most of the financial and professional services in C. D. 14. Thus, the trends derived from the D.B.S. data on the "services" wholesale and retail trades can only be used as an indication of the trends which are appearing in the general service sector of the economy.

RETAIL TRADE

Four major trends emerge from the analysis of data for the decade (1951 - 1961). First, the total number of stores engaged in retail trade increased 61% in C. D. 14 and 18% in the province. Secondly, the average dollar value of retail sales per capita increased 64% in C. D. 14 and 25% in the province. Thirdly, the total payroll increased 189% in C. D. 14 and 141% in the province.

The conclusions reached by comparing the provincial and C. D. 14 trends (1951-1961) suggest that the retail trade industry in the project area is characterized by: a rapid increase in the total number of retail establishments, an increase in the average dollar value of receipts per establishment, an increase in the percentage of the labour force employed in retail trade and a higher remuneration per worker employed in retail trade. In effect, this suggests that a trend towards larger retail units and an increased volume of sales per unit is an important characteristic of the retail trade industry in C. D. 14.

Table H-II illustrates the rapid increase in the number of stores and in purchases per capita in the survey area.

Table H-II

NUMBER OF RETAIL STORES AND SALES PER CAPITA

in Alberta and C. D. 14

	Alberta		C. D. 14	
Year	No. of Stores	Sales per Capita	No. of Stores	Sales per Capita
1951	8,412	$764	118	$463
1961	9,902	956	190	759
% Increase	18	25	61	64

Source: Census of Canada, 1961, Retail Trade.

Automotive sales accounted for over a third of the total sales, while the food group represented another third of the retail purchases. The proportion of sales of wearing apparel, hardware, home furnishings and other miscellaneous groups were considerably lower in C. D. 14 than in Alberta. As the population increases, the proportion of retail sales of the food groups will increase.

WHOLESALE TRADE

Relatively little data is available at the present time to determine the trends in the wholesale trade. It would appear that a considerable proportion of this trade is carried out by representatives of firms based in Edmonton. It is, nevertheless, an important segment of the economy.

SERVICES

The term services is used here to denote personal services in a broad context rather than the tertiary services generally. As was previously indicated, the retail and wholesale trade also contributed to the total in the tertiary industry or as is commonly called the "service industries".

Again there is a remarkably faster development of the service industries in C. D. 14 than in Alberta.

The receipts per capita in the survey area exceeds the receipts per capita for Alberta. However, over three-quarters of the receipts from providing services in C. D. 14 are derived by the hotel, tourist camp, and restaurant group, compared to approximately 60% for the province. All other categories were much lower in proportion of receipts in C. D. 14. Among these other categories are business services, repair services, and amusement services.

Table H-III shows the relative growth of selected services.

Table H-III

SERVICES BY NUMBER OF LOCATIONS AND BY RECEIPTS PER CAPITA in Alberta and C. D. 14

	Alberta		C. D. 14	
	Number of Locations	Receipts Per Capita	Number of Locations	Receipts Per Capita
1951	4,504	$126	68	$117
1961	5,921	179	112	183
% Increase	31	42	65	56

Source: Census of Canada, 1961, Service Trades.

Services referred to in Table H-III include: amusement and recreational group, business services group, personal services group, repair services group, undertaking and funeral services group, photography services group, hotel, tourist and restaurant group and other miscellaneous services.

In general it may be concluded that the tertiary industries are developing faster in the survey area than in the province. This is to be expected because of the increase in population and establishment in the area of primary and secondary industries. Continued acceleration of the service industries is anticipated.

POWER

Calgary Power services Census Division 14, with the exception of a small area around Brule, which is west of Hinton and Entrance. This is handled by Northwestern Utilities which also supply Jasper. Calgary Power has a 132 K.V. line from their Wabamun power plant west past Edson, with a 33 or under K.V. line which services the area between Edson and Evansburg. They also have a 33 to 72 K.V. line which runs to Whitecourt.

Electricity in C. D. 14 is competetive because of the availability of cheap fuels. North West Pulp & Power produces their own power and at one time they supplied the entire town of Hinton. At present they still supply Hinton with power during emergencies. The Cadomin limestone quarries have their own generators along with most of the lumber mill operations.

Calgary Power can supply anyone in the area with power as long as there is a large enough demand, and prices can be negotiated.

I. EDUCATION

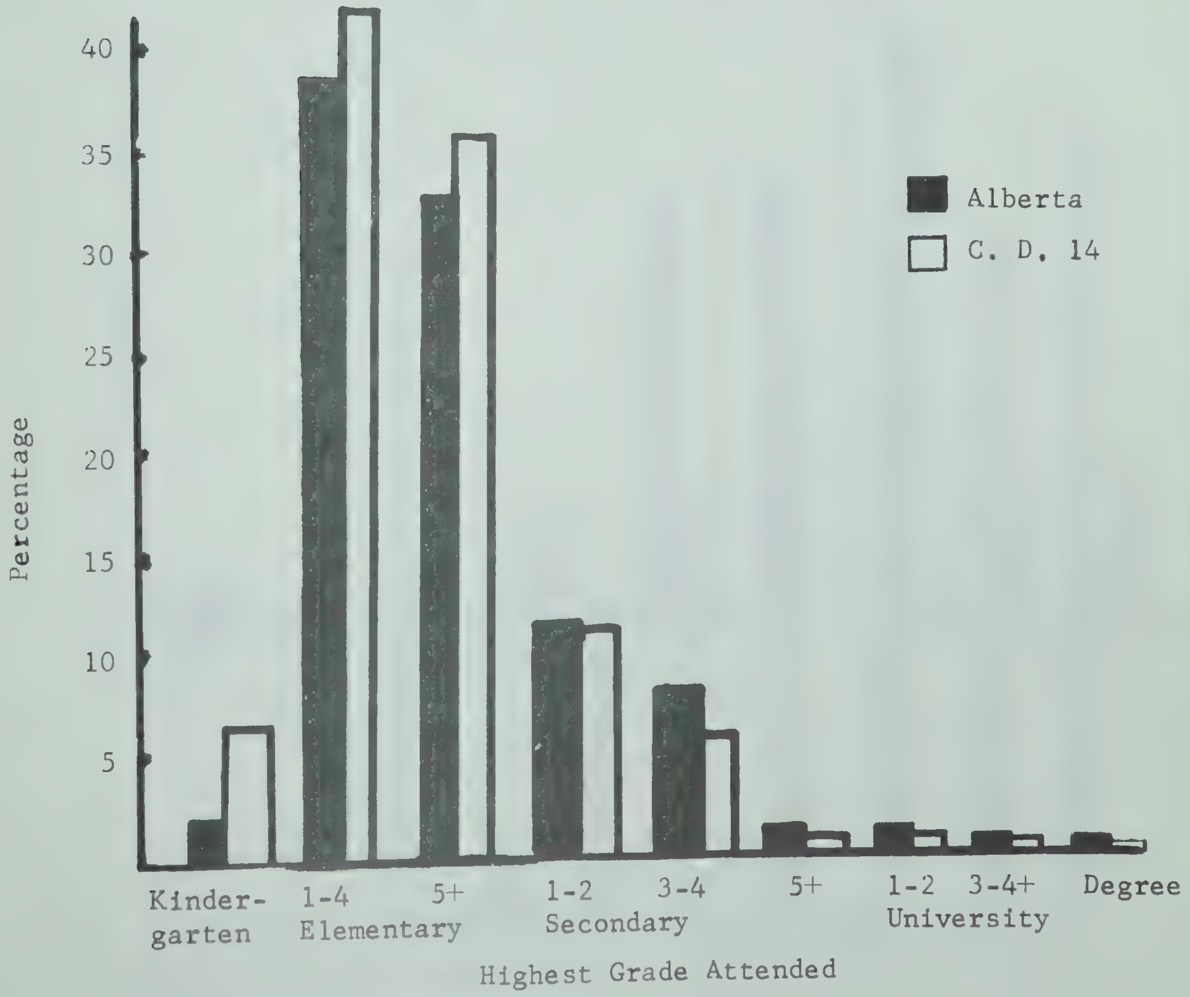
EDUCATION LEVELS

Education is one of the most important factors in the development of any area. Employers insist upon a certain level of education before an applicant is accepted for many jobs and these requirements are continually rising. The development of industry in an area will therefore by-pass the people of an area who do not have these educational qualifications. These are often the people who are most in need of the income that could be derived by working in new or expanding industries. New industry is moving into C. D. 14 but often it must look outside of the Census Division for the personnel qualified for the jobs it offers.

Figure I-1

PERCENTAGE OF POPULATION ATTENDING SCHOOL IN 1961

by Highest Grade Attended

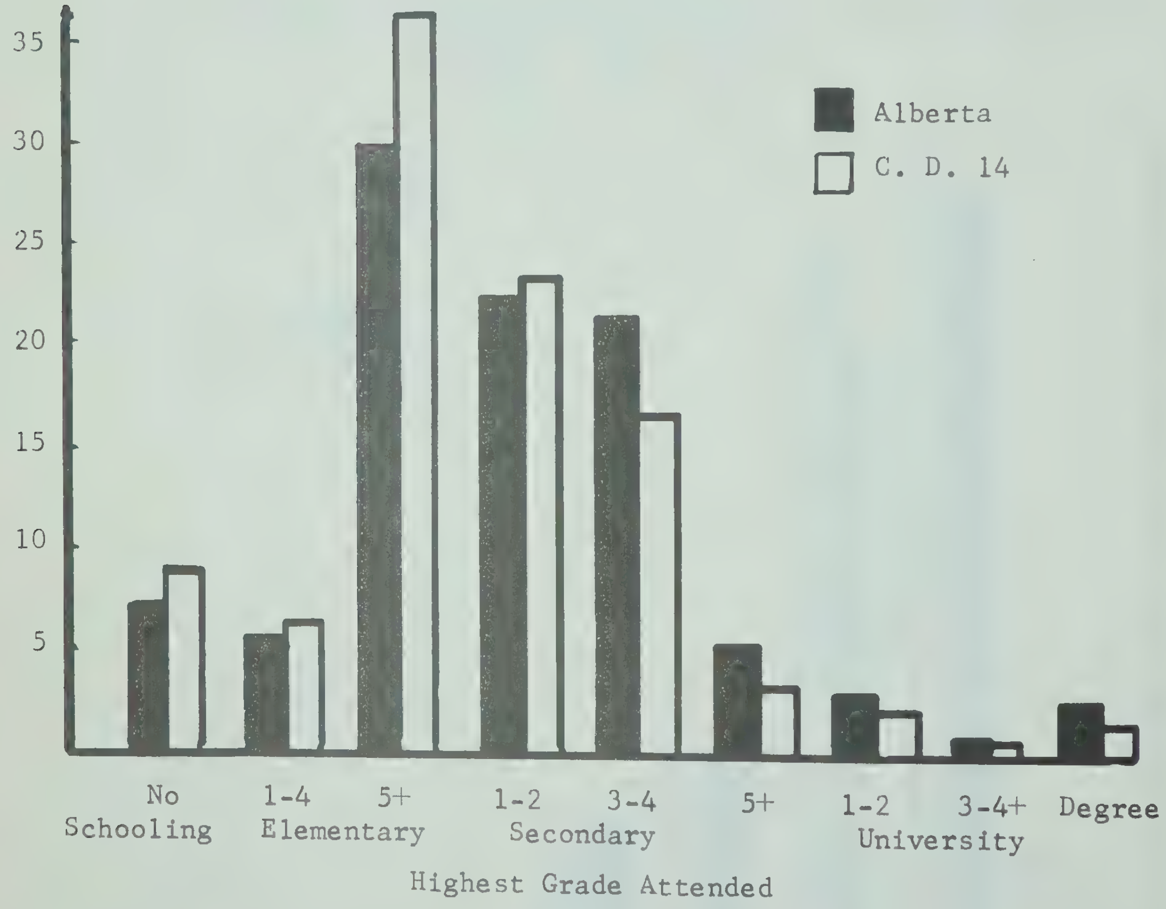


According to the 1961 Census of Canada, 26.78% of the population of the Census Division are still attending school in C. D. 14 as compared with 27.70% for the Alberta average. Of the 73.22% of the population of C. D. 14 who are not attending school, 52.22% have grade six or less and 92.63% have grade ten or less. Only 7.37% of the population has more than grade ten. The provincial average is 11.95%. In all categories there is a lower level of education in C. D. 14 than is the provincial average. (see Table I-1 and I-2).

Figure I-2

PERCENTAGE OF POPULATION NOT ATTENDING SCHOOL IN 1961

by Highest Grade Attended



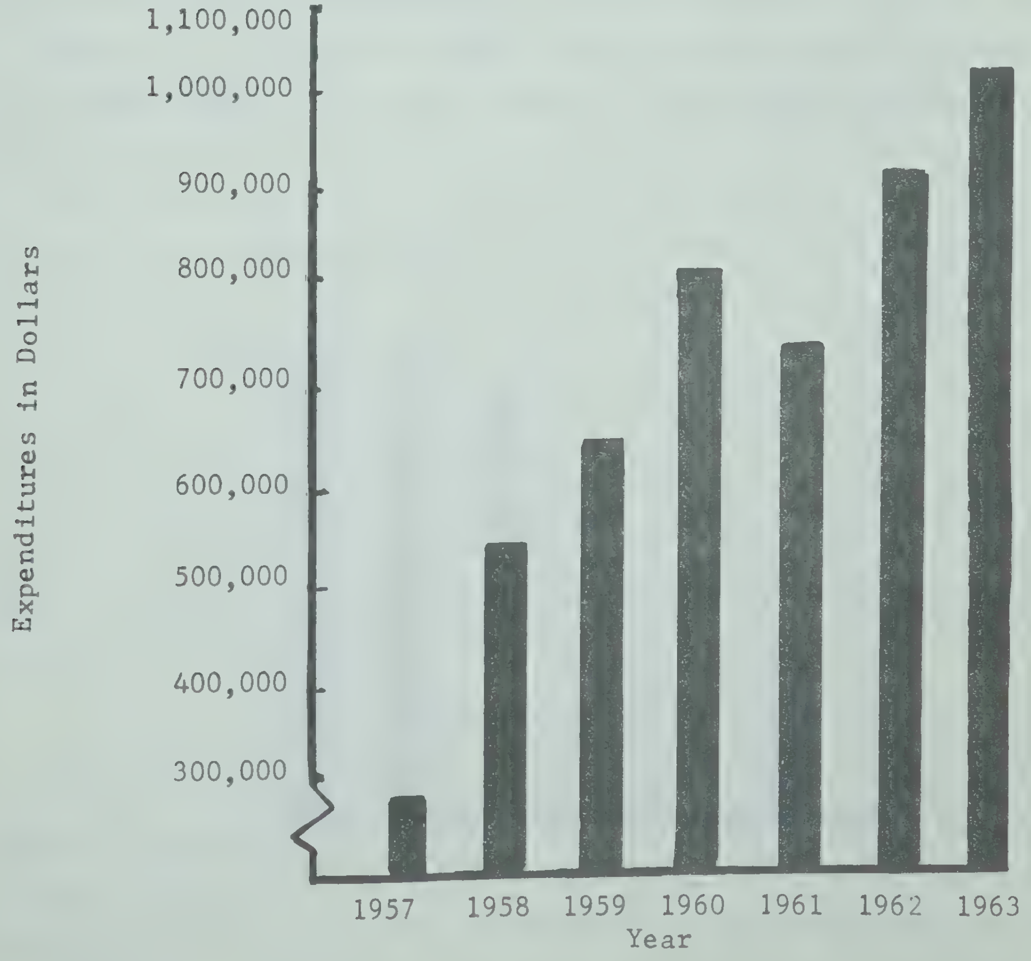
FINANCE

Table I-3 shows the amount of money paid by the various municipal authorities toward the cost of education. The figures in this table are not the total amount spent on education in the area but are simply the contributions of the municipal bodies to the support of the schools. These figures include the contribution to the School Foundation Program, a school division requisition and a school district requisition. The total amount spent on education will be considered later. The amounts contributed by the municipal authorities have shown a general increase but as shown in Table I-4 there is no general trend toward a higher proportion of the total municipal expenditures going to education.

It is evident that the per capita payments for education have risen over the period 1957 to 1963 as shown in Figure I-3. The figures for this table (Table I-3) were computed from Municipal Affairs Annual Reports for the designated years, using the population estimates given in those reports. This rise in per capita expenditure for education is not necessarily an indication that the individual tax payer is paying a great deal more toward

Figure I-3

EXPENDITURES ON EDUCATION IN C. D. 14



education in 1963 than in 1957, but the increase can be largely accounted for by the increase in the industrial sector of the tax base. Figures that would show the proportion of the tax base that is classified as land and improvements of individual private citizens are not available at this time. This makes it impossible to determine the amount of the increase that is borne by farmers or urban home owners.

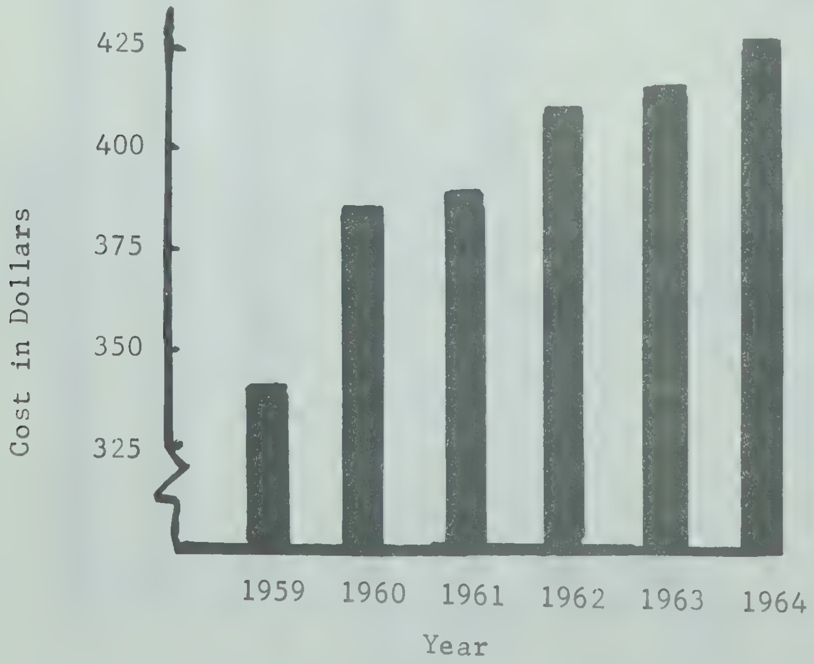
Education taxes are figured on the basis of an equalized assessment which is a method of adjusting the actual assessment so that every municipality pays "its fair share". This method adjusts the assessments so that farm land and urban assessments are more nearly equal. When the supplementary requisitions for school divisions and school districts are made the power lines and pipe lines assessments are not included.

Pipe and power lines pay only provincial and federal taxes which in the case of education, are those taxes paid to the School Foundation Program. Because of this, the assessments shown in the school district annual reports do not include assessment of pipe and power lines.

The rising costs for education can be seen by referring to Table I-5. This table indicates the expenditures per student for the Lac Ste. Anne School Division and the Edson School Division. All of the Edson School

Figure I-4

AVERAGE COST PER STUDENT IN EDSON SCHOOL DIVISION



Division is contained within C. D. 14 but only the western portion of the Lac Ste. Anne School Division is within the boundary of the Census Division. Edson School Division includes Edson, Hinton, Evansburg and Wildwood; Improvement Districts 78, 79, 95, 96 and a portion of 109. Most of Improvement District 109 is in the Lac Ste. Anne School Division as is the town of Whitecourt. There is a very small portion of Improvement District 109 in the Barrhead School Division which has not been covered.

Table I-5 shows that the cost per student has risen steadily in the period 1959 to 1964. During this time the cost per student in the Edson School Division rose from $341.44 to $425.94 or a rise of 24.75%. In the comparable period in the Lac Ste. Anne School Division the expenditure per student rose from $301.26 to $411.69 or a 36.66% increase. This cost will probably continue to increase in the future as the rural areas continue to attempt to compete with urban areas for teachers and as they begin to offer more vocational training in the high schools.

Table I-6 shows the expenditures of the Edson School Division broken down into categories and expressed as a percentage of the total expenditure for the year. Although monetary values increased in each category over the period 1959 to 1964, the only category that increased steadily as a proportion of the total over that period was the debt charges category. Table I-8 shows the proportion of the expenditure increase in each year which is attributable to the rise in debt charges. In 1963 over 46% of the increase in expenditure was attributable to the increase in debt charges and in 1964 over 25% of the gain was attributable to that source. It seems, therefore, that the debt of the School Division is becoming increasingly burdensome. A similar breakdown has not been done for the Lac Ste. Anne School Division.

The salaries of teachers and administrators have also increased over the period (Table I-9). The average yearly wage of the Edson School Division has increased 21.64% and the Lac Ste. Anne Division average increased 23.28% over the years 1959 - 1964.

TEACHER QUALIFICATIONS

The qualifications of the teaching staff in both school divisions are gradually increasing (Table I-10). In 1959 only 13.99% of the teachers in the Edson School Division had degrees, rising to 23.98% in 1964. Comparable figures for the Lac Ste. Anne School Division are 6.06% and 15.83%.

Figure I-5

PERCENTAGE OF TEACHERS WITH DEGREES

in Edson and Lac Ste. Anne School Divisions

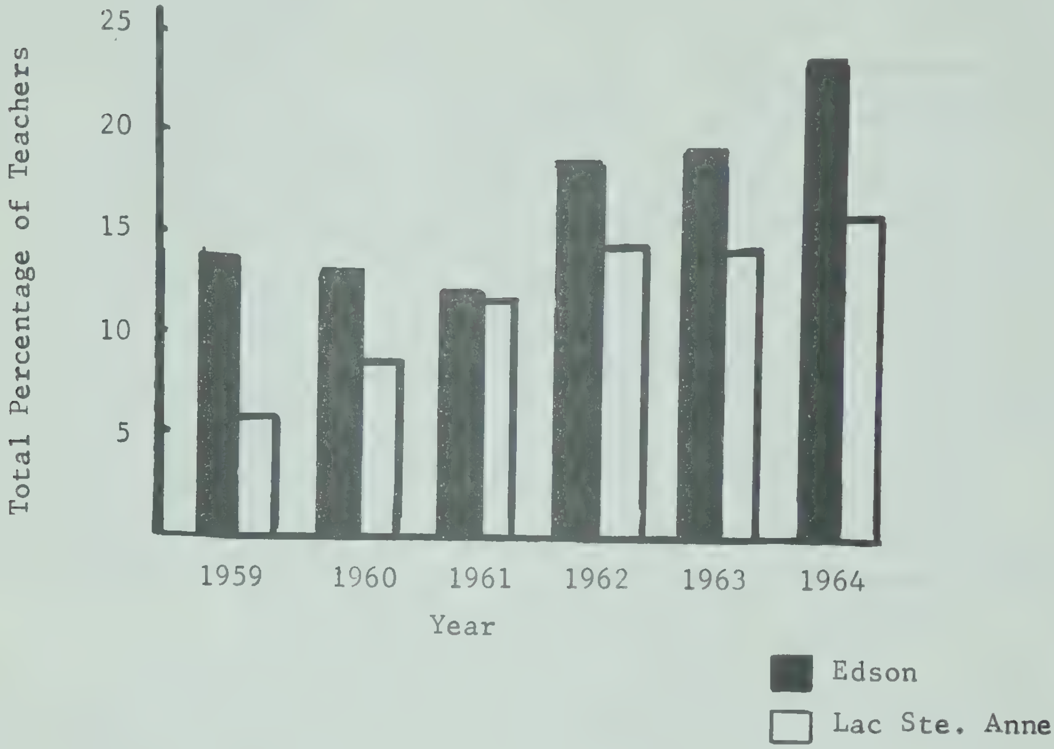
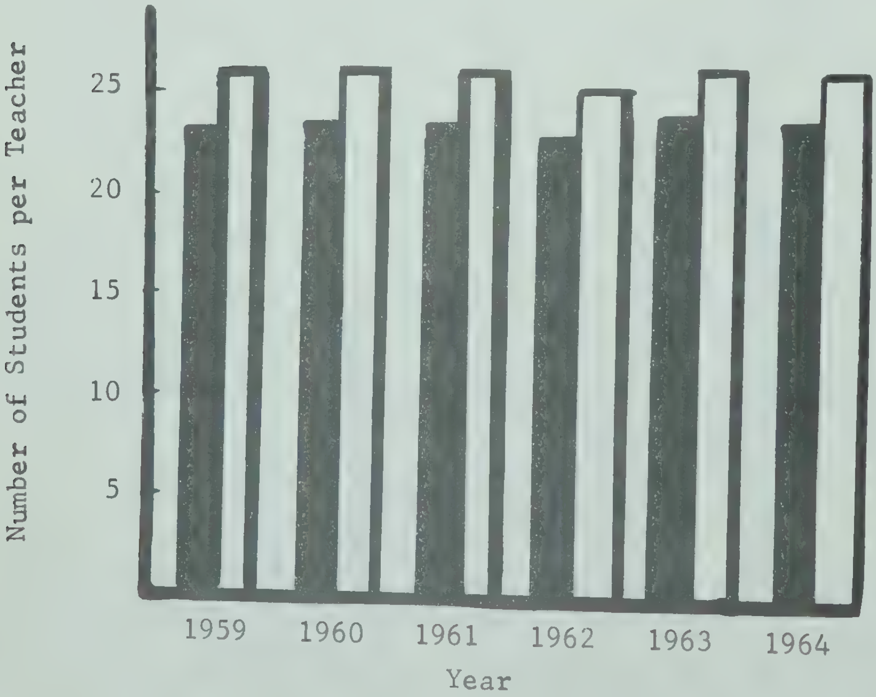


Figure I-6

TOTAL NUMBER OF STUDENTS PER TEACHER

in Edson and Lac Ste. Anne School Divisions



STUDENT POPULATION AND ACHIEVEMENT

Table I-11 shows that the student population has increased rapidly over the period 1958 to 1964. The student population of the Edson School Division grew from 3,114 to 4,278, an increase of 37.38%. The student population of the Lac Ste. Anne School Division went from 2,453 students to 3,166 students, an increase of 29.07% which is 7.4% lower than Edson. In spite of this rapid growth in student population the number of students per teacher has fluctuated very little. However, the ratio is slightly higher in the Lac Ste. Anne School Division than in the Edson School Division (See Table I-11). Also, the number of students per classroom has fluctuated very little over that period as indicated in Tables I-12 and I-13. This seems to indicate that the school building program has kept pace with the growth in student population.

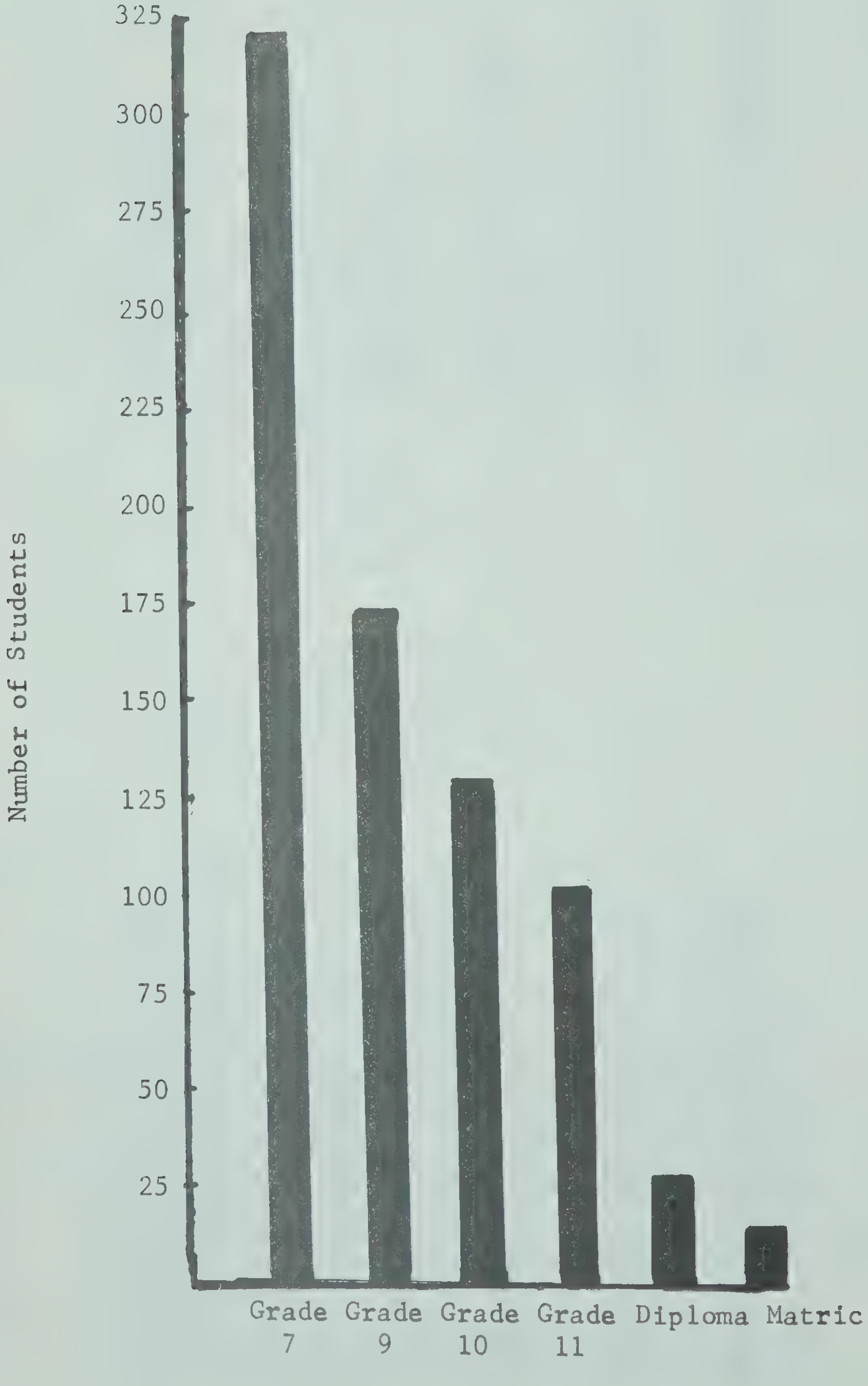
The years a student is in grade nine and in grade twelve are important years from the standpoint of examination results, in that in these years the student writes departmental examinations. The student is not only competing with his own classmates but with all Alberta students. Tables I-14 and I-15 show the examination performance of students in grades nine and twelve. In the Edson School Division the percentage of grade nine students with passing marks rose from 81.68% to 90.60% over the period 1959 - 1964. The percentage of grade nine students with passing marks rose in the Lac Ste. Anne School Division also, but only from 80.0% to 84.20%. Table I-15 shows grade twelve examination performance as a percentage of the papers written that were passed and not in terms of the numbers of students with passing grades. In the Edson School Division there seems to be a downward trend in the percentage of papers passed. In 1959 the percentage of papers passed was 85.97 and by 1964 this had declined to 77.04%. Lac Ste. Anne School Division, however, has experienced just the opposite. In 1959, 74% of the grade 12 papers were passed and by 1964 this had risen to 85.5%.

DROPOUTS

Two methods were used in order to discover some indication of the dropout situation. One was to take a grade nine class and trace it through (in numbers) to grade twelve. This was done for those grade nine classes

Figure I-7

NUMBER OF STUDENTS IN 1957 - 1958 GRADE SEVEN CLASS RETAINED IN SUCCESSIVE YEARS



Source: Table I-18.

which would graduate from grade twelve in the years 1960, 1961, 1962, 1963, and 1964. These tables seem to indicate a crucial period between grades nine and ten. In every case, both the number of dropouts and the percentage change in this category was the largest. This trend is even more pronounced in Lac Ste. Anne School Division than in the Edson School Division. This method, however, can give only a rough measure of the extent of dropouts as there is always some out and in migration, which makes a difference in class size. If there has been out-migration, the dropout rate will appear larger than it actually is. However, an examination of the population trends in the area shows that there has been more in-migration than out-migration and thus the dropout estimate would probably be conservative. In spite of this qualification each of the five classes lost about 50% of its students between grades nine and twelve. (See Tables I-16 and I-17.)

The second method of assessing the dropout situation was to list all those students in grade seven six years ago and to trace them individually to grade twelve. In this way an accurate count could be obtained of those who dropped out of school. Table I-18 gives a summary of the findings of this method. This table indicates that of the 319 students in grade seven only 40 of them obtained a diploma or matriculation standing. This is only 12.5% of the grade seven class. If we take those in grade nine and trace them to grade twelve we find that 40 out of 171 or 29.24% of them graduated from grade twelve. This second method, however, may tend to over-estimate the number of dropouts because some of the people concerned moved out of the province and could not be found. These people are then classed as dropouts when possibly they are not.

In summary, 50% to 70% of those students who enter grade nine will not graduate from grade twelve.

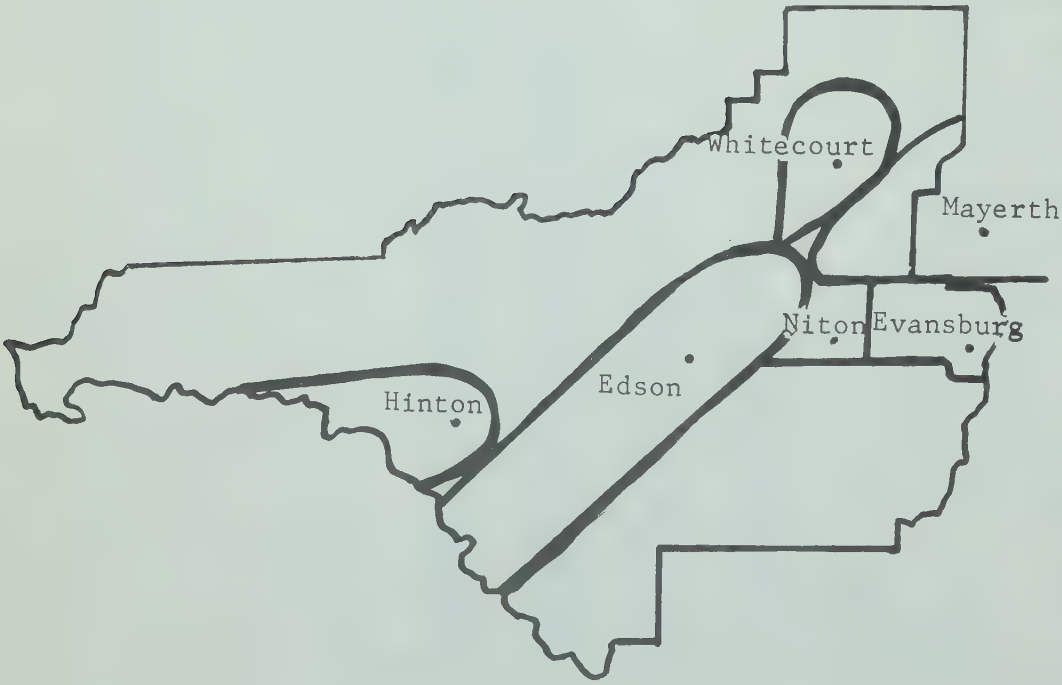
PHYSICAL FACILITIES

Figure I-8 shows the location of high schools that serve residents of the Census Division. These schools offer basic matriculation courses with a limited selection of electives. The Edson School Division has one high school, two junior-senior high schools, one school serving grade one through twelve, and one junior high school. There are twelve other schools which serve grades eight or less. There are also schools in Whitecourt, Blue Ridge and Anselmo in the Lac Ste. Anne School Division. Schools at Mayerthorpe, which is outside of C. D. 14, serve some of the residents of the Census Division as indicated in Figure I-8.

Figure I-8

AREAS SERVED BY HIGH SCHOOLS IN CENSUS DIVISION 14

1964



EDSON SCHOOL DIVISION STUDENT SURVEY

In the years 1962 and 1964 the Edson School Division gave a questionnaire to all students in grades 7 to 12, concerning their preference as to program. The questionnaire gave a choice of matriculation, general diploma, business education, technical and vocational agriculture patterns. Since services could not be provided in all centres for all courses the students were asked if they would consider living away from home while attending school. The students were to fill in the questionnaire and then take it home to their parents. The parents were to sign the questionnaire and then indicate their agreement or disagreement with the students' answers.

Tables I-19 and I-20 show that interest in a matriculation pattern rose considerably over the two years with a difference of almost 5% between the 1964 and the 1962 surveys. The other choices showed only very slight changes. When broken down by school it is found that in the Niton, Evansburg, Wildwood and Edson junior high schools, 50% or fewer students selected the academic pattern. These schools showed correspondingly more interest in the business and technical patterns, (see Table I-21). Interestingly enough, although the Wildwood students are more interested in the business and technical programs, they are the least interested in living away from home to obtain this education (55.55% said they would not live away from home (Table I-24). Tables I-22 and I-23 correlate choice of program with willingness to live away from home and here it is found that those interested in a vocational agriculture pattern are most resistant to living away from home, although more students were willing in 1964 than in 1962.

ETHNIC PROBLEMS IN EDUCATION

According to the 1961 census there are 215 persons of native ancestory in C. D. 14 and of those,101 are in Improvement District 95. Most of them probably live in the Marlboro area. There is no breakdown available as yet for the educational levels of these people but all indications point to the likelihood of the levels being lower than Alberta averages and the averages for the other populations in C. D. 14. Dr. J. W. Chalmers, when the Director of School Administration, did a study of the education performance of Metis students. The study showed that the percentage of students above average age for any grade is higher among the Metis than among the white students in comparable areas. The grades at which these students begin to drop out are grades five and six for Metis and grades eight and nine for whites. These figures indicate that the Metis tend to drop out at earlier grades than white students. In fact the numbers of Metis students in grades eleven and twelve were so low that the percentage became meaningless.

In this study, teachers from various schools having Metis students were asked to comment on the performance of these students and to quote Dr. Chalmers report:

"In general, they indicate that Metis children usually constitute an educational problem for such related reasons as:

a. Poverty.

b. Irregularity of attendance.

c. Migratory nature of the people.

d. Sub-standard medical and dental care.

e. Hostile attitude toward school.

Surprisingly, perhaps because the fact is so common as not to be worth noting, ignorance of English was not mentioned as a handicap for beginning students. Another significant omission was lack of intelligence. Apparently, teachers and others intimately concerned with education of Metis children do not feel that low intelligence is a factor that limits their school progress." 1/

Dr. Chalmers also went on to note that respondents did not stress the conflict of value systems between the Metis community and the white community. However, these differences are undoubtedly partially responsible for the low educational performance of Metis students. It is probable that the situation in the Edson School Division is similar to that reported by Dr. Chalmers. A copy of his report can be obtained from the Division of School Administration of the Department of Education.

There is a school at Marlboro that formerly taught grades one to six. During the last school year (1964 - 1965) the school was reduced to the first three grades. The intent of the school board was to bring the Metis children to Edson where earlier contact with the white population might bring about a more rapid and easy adjustment so that the number of dropouts

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1/ J. W. Chalmers - Metis School Study.

in higher grades would be reduced. This move met with some opposition and the next year the first six grades were taught.

One of the school teachers living in Marlboro has recently organized a kindergarten for pre-school children. One class has started school and it is reported that students from this kindergarten do much better in grade one than those who have not had kindergarten experience. Perhaps the merits of such kindergartens could be further investigated.

VOCATIONAL EDUCATION

The Alberta Department of Education through its Division of Vocational Education offers vocational training services in five general areas. These are vocational high schools, trade training (apprenticeships), technical training, university training, and adult vocational training.

The vocational high school program is handled through the local school division. In this program the courses offered are not rigid and can be designed to meet the needs of the local community but a student usually takes about 50% of his courses in vocational shop and 50% in related courses such as social studies, mathematics and sciences. Programs may lead to matriculation, further training in an institute of technology, apprenticeship, or direct entry into the labour force. If the student wishes to go on for technical training the vocational high school program can provide him with his first year of the technical course but remaining years must be taken at the Institute of Technology. If the student wishes to take trade training he can receive credit for his high school training. This credit is in the form of a shortened term of nine months instead of a term of twelve months. Most apprenticeship training is for a four term period so a graduate of a vocational high school would spend a total of 36 months as an apprentice instead of the usual 48 months.

In order for an area to obtain a vocational high school, the local school division must submit a brief to the Division of Vocational Education outlining their proposed program, their ability to support the facilities and justify the need of such a school in terms of population, area served and number of students. The area served must have a minimum of 1,000 high school students in order to qualify for a vocational high school and at least 500 for a business education program. Two or more school divisions may work together in order to obtain the necessary population. Instructors in these high schools must be qualified journeymen tradesmen in their field with teacher certification. If such teachers cannot be found, bursaries may be offered by the school division. Reimbursement by the province for such expenditures is made to the school division. Once approval has been forthcoming construction plans can proceed. The school division pays for the capital cost of the project. (The province in turn shares the cost with the Federal Government.) The total cost of operating the schools rests with the school division. This includes payment of teachers salaries.

The trade training or apprenticeship program is carried on in conjunction with the Provincial Department of Labour and with employers in industry. In this program an individual must have employment with an employer who is a journeyman and is willing to enter into an apprenticeship agreement with him. Experience is gained on the job through working with the journeyman and for part of each year (about 8 weeks) the apprentice is required to attend trade training courses. These courses are now offered in Edmonton, Calgary, Fairview and Lethbridge. While the student is attending these courses he receives a living allowance and paid transportation from his place of employment to the training centre and return. While the apprentice is on the job, he is paid from 40% to 90% of the prevailing journeymans' wage rate depending on qualifications and experience.

Technical training is available at the Northern Alberta Institute of Technology in Edmonton and the Southern Alberta Institute of Technology in Calgary. Brochures outlining courses and requirements are readily available from these institutions.

At the university level, the Division of Vocational Education is concerned with the training of vocational education instructors. As stated earlier, teachers in a vocational high school must be qualified journeymen in their field and have a teaching certificate. The province shares with the university the cost of facilities used in training these instructors as well as assisting prospective teachers with bursaries.

The fifth category, that of adult vocational training, encompasses any training activities not mentioned above. This training, in many cases is in the form of relatively short courses for adults whose job conditions are changing due to general technological change, or those who wish to change their jobs. The keynote in this program is flexibility and courses of almost any kind can be established if there is a need and a demand for them. In the past, courses such as pipeline welding, barbering, hairdressing, nurses aid training and many others have been offered. The request for a course usually comes from an industry but may come from any interested group. Upon receipt of a request the Division of Vocational Education investigates the possibilities of holding a course in terms of availability of instructors, facilities, and potential enrollment. If teachers and facilities can be found a course is usually established. In the past, courses have been held in any suitable facility but at present the Division of Vocational Education is establishing permanent facilities in Edmonton and Fort McMurray. One course which may be of great value in C. D. 14 is the vocational preparatory training course. The purpose of this course is to upgrade the educational skills of workers in mathematics science and other subjects so that they are prepared to take further training. This type of program would be of value since, according to the 1961 Census of Canada, over 80% of those not attending school in C. D. 14 have less than a grade 12 education. This limits the "trainability" of the labour force. Minimum qualifications for training programs (e.g. apprentices) may be grade nine or ten but these are minimal and many employers like higher qualification than these.

Programs offered under this fifth category are financed by provincial money but under certain conditions the federal government will reimburse the provincial government. If there is any charge for a course it is minimal. Financial aid programs are available for those people who are unemployed, on welfare, or subject to some disability so that they receive some income while attending courses.

Further information on any of the above topics can be obtained from Mr. D. L. Campbell, Assistant Director of Vocational Education, Room 210, Empire Building, Edmonton.

CONCLUSIONS

In the light of the above discussions several problem areas can be pointed out. In general, Census Division 14 has a lower educational level than the provincial average. Some attention could be profitably directed to some adult education programs to change this position. As costs per student and numbers of students continue to increase, some anticipatory planning is necessitated. Additional investigation into the problem of the decline of the proportion of grade twelve papers passed is advisable as well as action to alleviate the dropout problem.

GOVERNMENT

GOVERNMENT STRUCTURE

Census Division 14 comprises the five improvement districts numbered 78, 79, 95, and 109. Within these districts are the towns of Edson, Hinton, and Whitecourt, and the villages of Evansburg and Wildwood. C. D. 14 also includes (or partially includes) one separate and two public school divisions, two health units, two national employment (N.E.S.) areas, four R.C.M.P. detatchments, and two forest districts.

The improvement districts, as such, are governed by the Provincial Department of Municipal Affairs, with offices in Edson and Evansburg. The Department of Municipal Affairs, as a corporate body makes assessments, collects taxes and makes expenditures on behalf of the improvement districts. The Department is assisted by the Department of Highways (with an office in Edson) in road construction and maintenance. Welfare is handled by the Provincial Welfare Department (with offices in Edson and Barrhead). Moneys spent in the improvement districts is obtained from Municipal Affairs. In some districts locally elected advisory boards aid the provincial government departments.

The towns and villages have their own corporate structures, which in most cases are similar to one another. Edson and Hinton are governed by an elected body of councillors, one of whom is also elected as mayor, and permanently appointed administrative staff. Figure J-1 on page 176 shows the structure of the elected government of Edson, and Figure J-2 on page 177 shows the structure of the appointed administration of Edson. The governmental structure of Hinton is similar to that of Edson.

The government of Whitecourt is unique in several ways. It has no mayor. Two members of its permanent staff are appointed by the Department of Municipal Affairs. These two appointments stem from Whitecourt's "new town" classification, entitling it to special grants and loans from the provincial government.

The village of Wildwood is governed by five councillors, who choose one of their number to act as mayor. The village of Evansburg has a three-man elected council, one of whom is chosen to act as mayor.

Figure J-1

ELECTED REPRESENTATIVES

1960

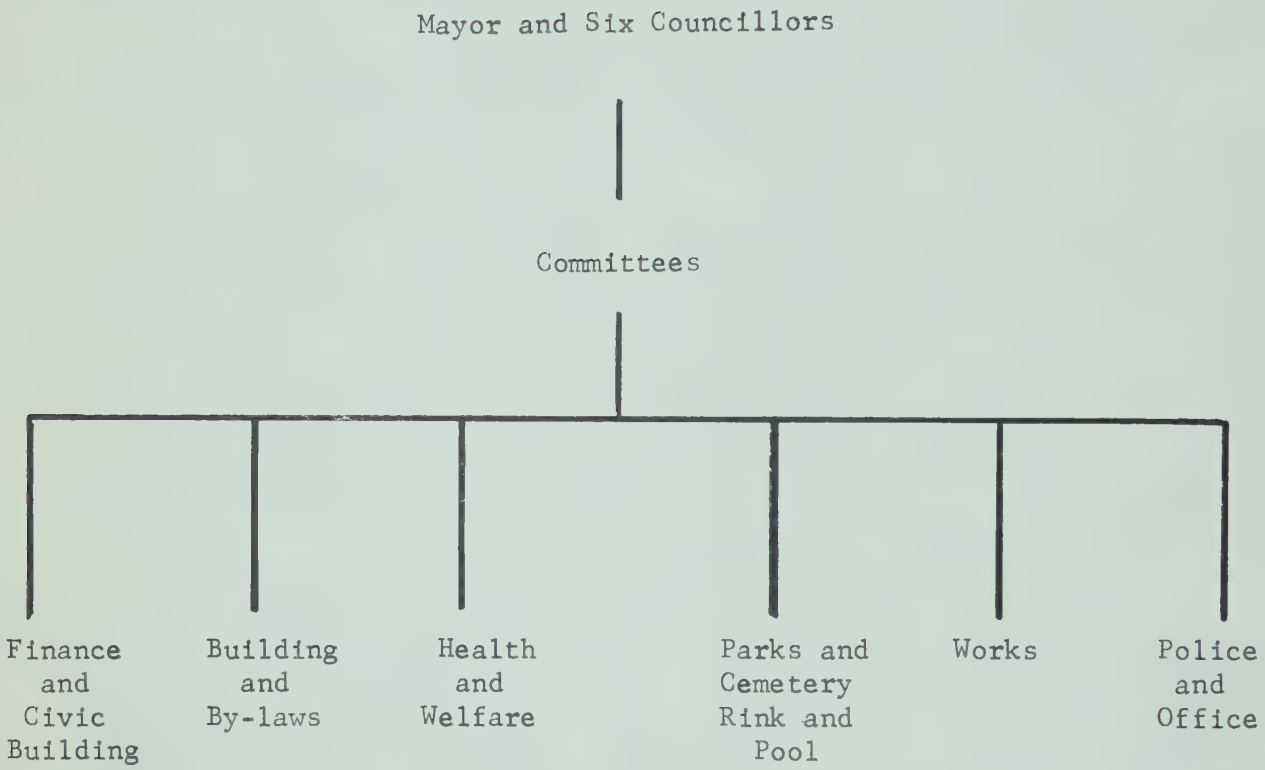
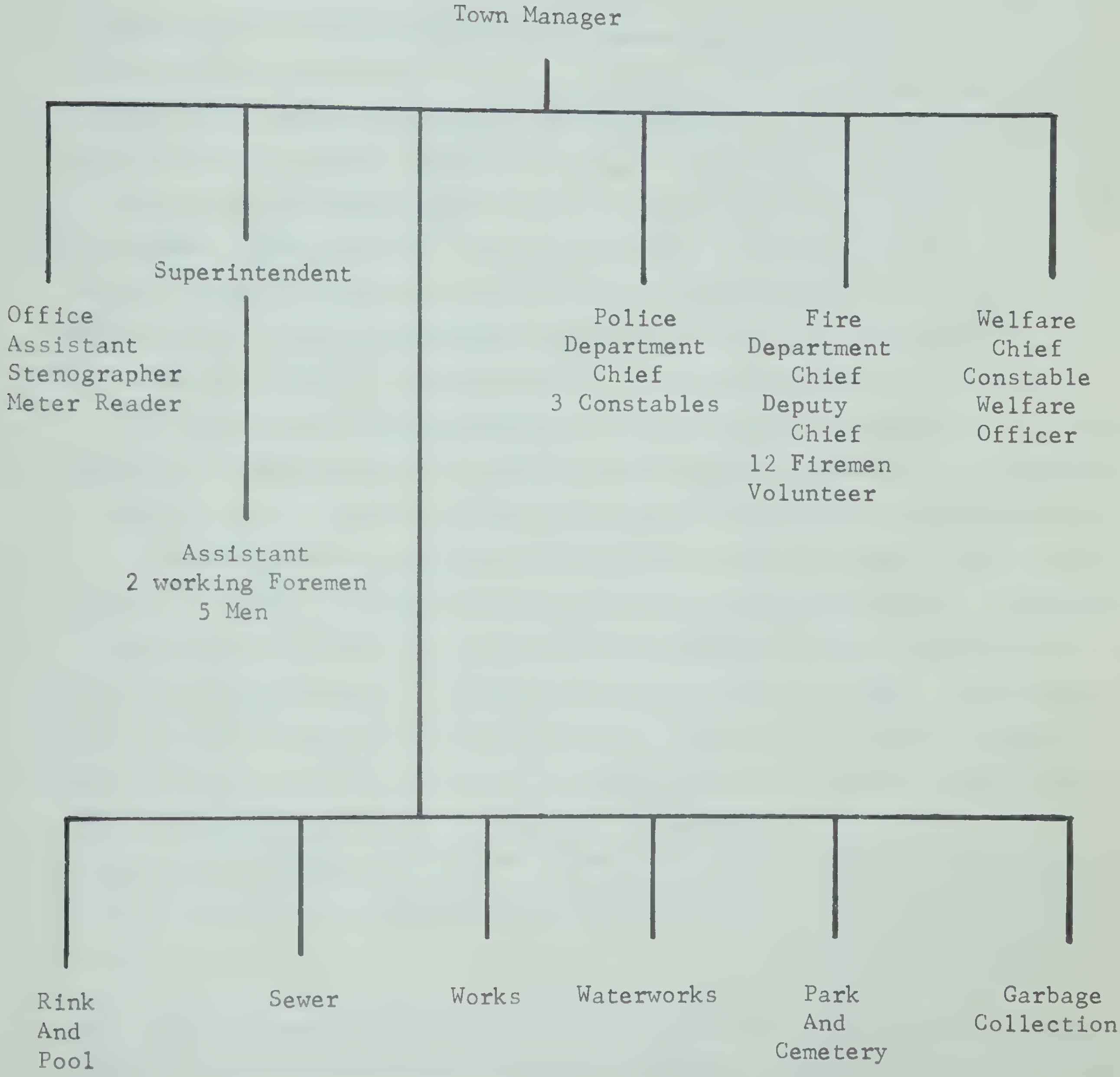

Mayor and Six Councillors
Committees
Finance and Civic Building
Building and By-laws
Health and Welfare
Parks and Cemetery Rink and Pool
Works
Police and Office

Figure J-2

APPOINTED REPRESENTATIVES

1960



EXPENDITURES AND RECEIPTS OF LOCAL GOVERNMENTS IN CENSUS DIVISION 14

EXPENDITURES

Tables J-1 and J-2 give a summary of the expenditures of the towns, villages and improvement districts in C. D. 14. Figure J-3 and J-4 show the proportion of the expenditures of the government bodies that is spent for various items. The largest item in the budget is education with the improvement districts spending 50% of their budget on this item and the towns and villages spending 39.5% on this item. The next most important expenditure of the improvement districts is for roads and bridges (34.4%). Education and roads make up 84.4% of the improvement district expenditure.

Table J-3 shows the breakdown of expenditures for each town and village in the Census Division. Proportionately Edson spends more on recreation and community services than any of the other towns or villages while Wildwood seems to spend far more (proportionately) for social welfare. Hinton leads the way in the proportion of the budget spent on education. Whitecourt spends more on protection to persons and property while Evansburg leads in expenditures for utilities and other municipal enterprises. Table J-4 gives a similar breakdown for improvement districts. The general pattern is for the improvement districts to spend most of their money on education with the next largest expenditure being roads and bridges. I. D. 96, however, reverses this pattern. Most of the expenditures of the improvement districts are fairly closely comparable except in the area of administration which is almost double the proportion spent by any other improvement district.

REVENUE

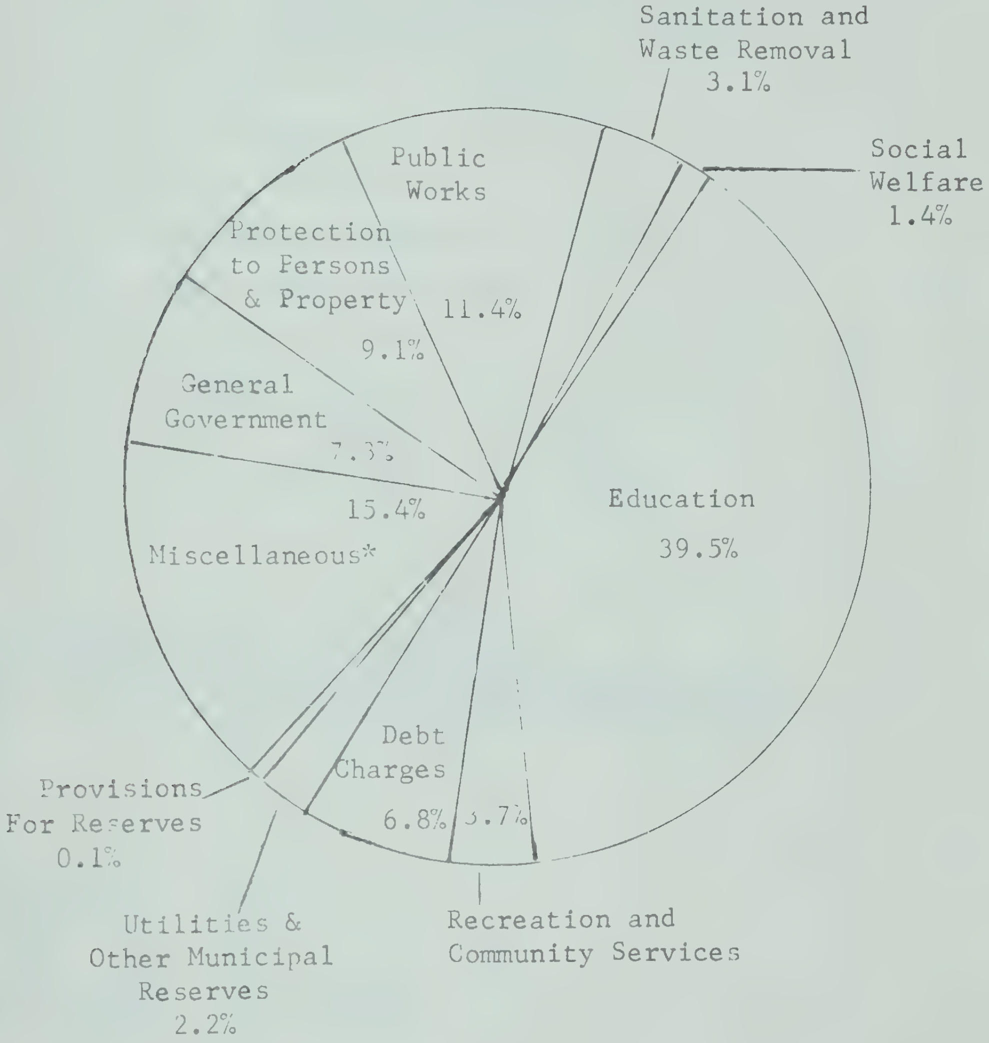
Not all of the money which is expended by these governments is received from taxes. Other sources of revenue are leases and permits, service charges, grants, etc. Tables J-6 through J-10 give a breakdown of the sources of revenue for the various governments in Census Division 14. In every case, taxes are the predominant source of revenue but provincial grants are also very important with an average of about 12% of the revenue

Figure J-3

TOWNS AND VILLAGES IN CENSUS DIVISION 14

SUMMARY OF EXPENDITURES

1963



coming from this source, (see Tables J-6 and J-8). Table J-9 gives a breakdown of the tax levy for towns and villages. This shows the sources of the tax revenue and their relative importance. As shown in Table J-9 taxes on real property constitute the major source of tax revenue for towns and villages with an average of 90% coming from this source.

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* Miscellaneous includes contributions to general capital and loan funds, joint or special expenditures and other miscellaneous items.

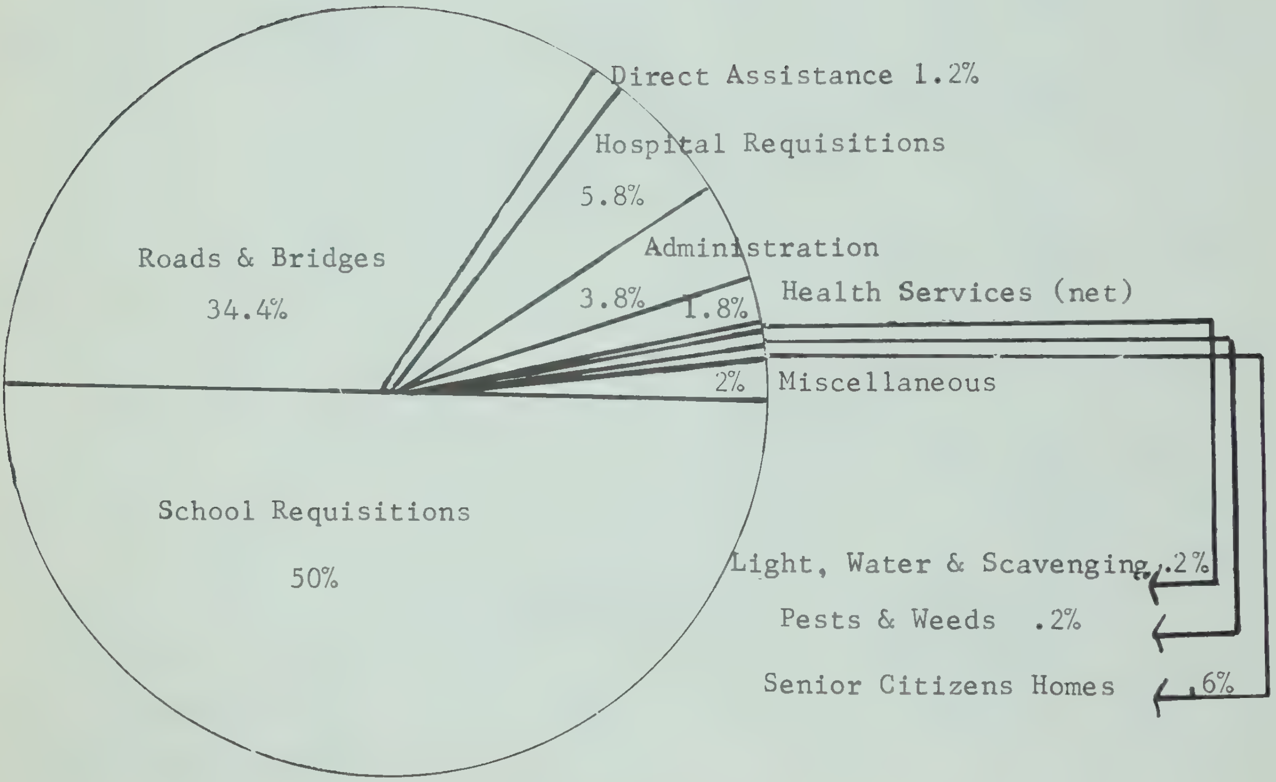
Business taxes supply an average of 2.1% of the tax revenue with Hinton and Wildwood receiving no revenue from this source.

Figure J-4

PAYMENTS MADE BY IMPROVEMENT DISTRICTS

C. D. 14

1963



WELFARE

The Edson welfare office serves all of C. D. 14 except for I. D. 109 which is served from the Barrhead regional office. In this province the term "welfare" is a general term which covers a number of categories of assistance from old age pension to social assistance. Other headings that can be included under welfare payments are family allowance, mothers' allowance, social allowance, etc. The major concern is with the numbers of people receiving social assistance. This category covers people who, for various reasons, need temporary assistance. Those who, for any reason, may need permanent assistance are placed in the category called social allowance or some other form of permanent aid such as old age pension or disability pension. Social Assistance is contributed to by the municipalities at a rate of 20% of the total but the remainder of welfare payments are paid fully by the federal and provincial governments. Expenditures by the municipal authorities of C. D. 14 on Social Assistance are shown in Table J-10. In 1962 this expenditure averaged 1.1% of the total expenditures of the improvement districts and in 1963 the expenditure averaged 1.7% of the total. Social Assistance, however, is a minor item in the welfare budget. An estimate made from records in the Edson welfare office showed that in 1964 approximately $143,257.00 was paid out in Social Allowance to over 130 cases in the Edson Region. This is an average of $1,077.12 per case per year. The Barrhead regional office estimates that there are about 33 cases of a similar nature in I. D. 109 and assuming a similar payment rate this would add $35,544.96 to the above total for an overall total for the Census Division of $178,801.96 in 1964. Estimates have been made for the above figures because the absolute figures are unavailable. However, the amount of money entering the area under this category is comparable to that which a small industry would bring.

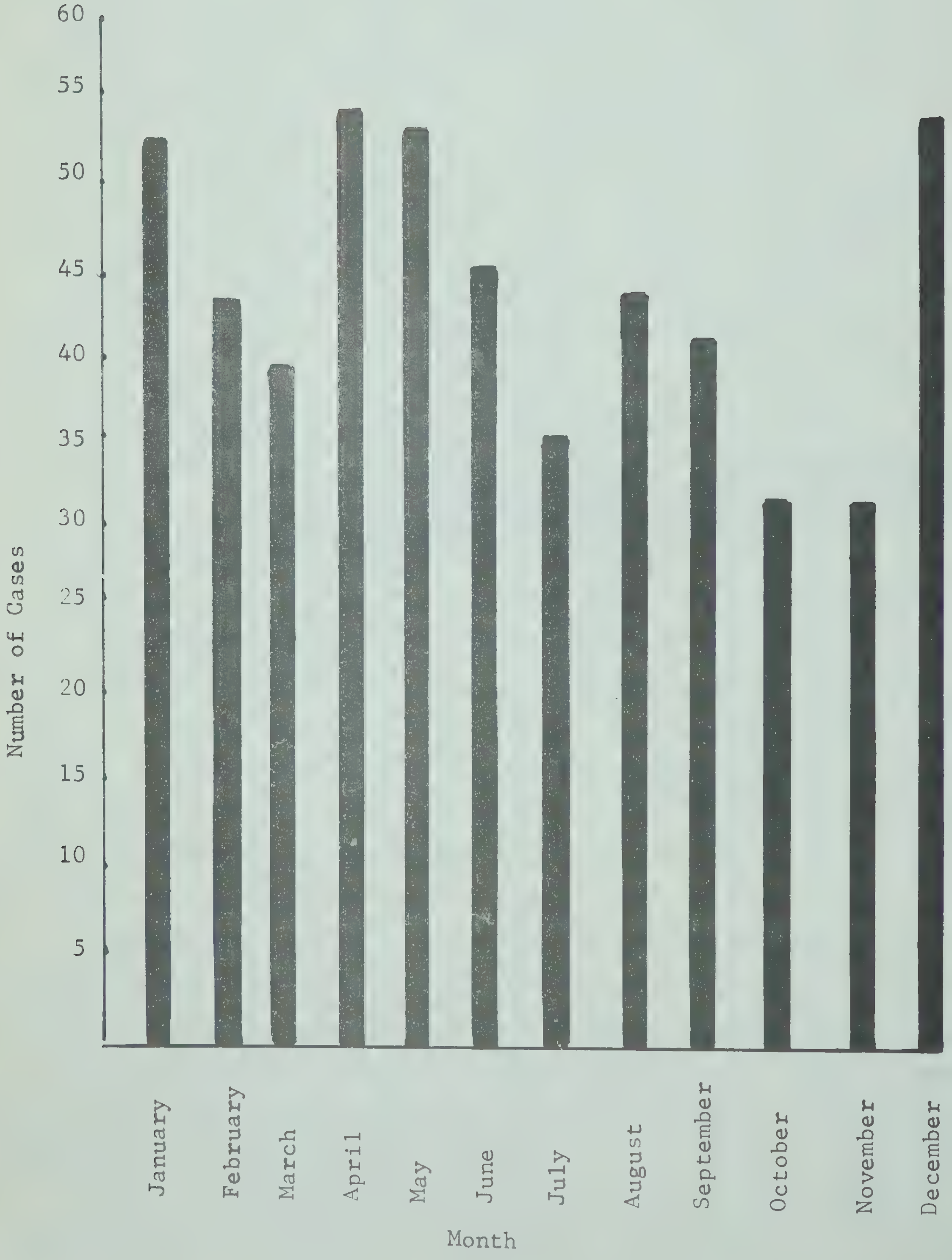
Table J-11 shows the reasons that are given for cases receiving Social Assistance. The majority of the cases (70.6% in 1964) fall under the "unemployed" category. These people are not necessarily permanently unemployed except that perhaps they do not have marketable skills. The "medical" category also is listed as a major reason for receiving Social Assistance. Twenty per cent of the cases in 1964 fell into this category. Other categories such as separation, desertion, jail sentences, unwed mothers, and alcoholism make up the remaining 9.4%.

Figure J-5

SOCIAL ASSISTANCE CASES BY MONTH

EDSON WELFARE OFFICE

1964



HEALTH

There are two hospitals in Census Division 14, one at Hinton and one at Edson. A hospital is also planned for Whitecourt. The hospital at Hinton has a capacity of 27 beds and the hospital at Edson of 36 beds, (see Table J-1). Other areas in C. D. 14 are served by hospitals outside of the Census Division. The Whitecourt area is at present served by the Mayerthorpe hospital and the Evansburg-Wildwood area by the Drayton Valley hospital. The Mayerthorpe hospital has a capacity of 20 beds and the Drayton Valley hospital a capacity of 35 beds, (see Table J-I). The following table shows that the Edson and Hinton hospitals have a percentage occupancy of well below the provincial average in both 1962 and 1963. The Drayton Valley hospital had a percentage occupancy above the provincial average in 1962 and slightly below the provincial average in 1963. The Mayerthorpe hospital had a rate well above the provincial average in both years. With the new hospital to be built in Whitecourt, some of the pressure will be removed in the Mayerthorpe hospital but the Drayton Valley hospital can probably be expected to continue at a high percentage occupancy.

Table J-I

CAPACITY AND PERCENTAGE OCCUPANCY OF HOSPITALS
Serving C. D. 14 for 1962 and 1963

Hospital	Capacity	% Occupancy 1965	% Occupancy 1963
Edson	36	67.4	57.4
Hinton	27	65.1	56.5
Drayton Valley	35	85.3	76.2
Mayerthorpe	20	94.0	82.1
Provincial Grand Total	8,069 8,307 (1963)	81.2	77.5

Source: Dept. of Public Health - Hospitals Division, Annual Report.

The trend in the construction of hospitals is to build larger and better equipped hospitals. Hospitals being built today are a minimum of 30 to 34 beds. There is also a trend toward regionalization in hospital services. This means that the province has some very large central hospitals in cities like Edmonton and Calgary, smaller, but well equipped regional hospitals such as those in Lethbridge and Medicine Hat and then small community hospitals. Most of the routine hospital care can be done in the community hospitals (approximately 80%). Patients who cannot be treated in these hospitals can be referred to the regional hospital (about 15%) and the remaining 5% of exceptional cases are referred to the large central hospitals in Edmonton and Calgary. Location of a new community hospital depends upon a number of factors, among them, the location of supporting medical services, staff and population. Generally there are to be five hospital beds to every one thousand population. This would mean that it would take approximately six thousand people to support a thirty bed hospital. The medical profession also says that a person should not live further than one hours drive (approximately 50 miles) from a hospital. This would place hospitals at a maximum of 100 miles apart. This does not mean, however, that all hospitals are to be 100 miles apart. In Alberta they are usually built much closer than this.

There are ten doctors resident in Census Division 14 (1964), nine of whom are practicing. There are also three doctors that operate a part-time clinic in Whitecourt but live in Mayerthorpe. This gives a doctor to population ratio of one doctor for every 1,752 persons. The Alberta average is approximately one physician or surgeon to every 906 persons. (The Alberta figure was computed by counting the number of physicians and surgeons on the Alberta address list, and may include some that are not practicing.) The Alberta average is considerably higher than the C. D. 14 average and may indicate that medical service is not as adequate in C. D. 14 as it is in most of Alberta. The ratio may improve as the hospital is built in Whitecourt and would improve even more if a hospital were to be built in Evansburg or Wildwood.

The Edson Health Unit serves I. D. 77, 78, 79, 95, and 96. Improvement District 77 is not included in the Census Division but the remaining four are. Improvement District 109 is served from the Lac Ste. Anne Health Unit. The Edson Health Unit staff (1964) consists of one medical health officer, two part-time dental officers, five public health nurses, one municipal nurse, one full-time dental hygenist, and one health inspector. The Edson Health Unit has offices in Edson, Hinton and Drayton

Valley. A dental hygenist was employed by the Edson Health Unit for the first time in 1963. It was found by the person that the average number of afflicted teeth per child was 8.2 for the health unit average, 8.8 for Edson, 8.5 for Hinton, 6.8 for the Muskeg, and 10 for Brule. There were only two full time dentists in C. D. 14 in 1964. This is a ratio of one dentist to every 9,641 persons.

HEALTH UNITS AND MUNICIPAL NURSING SERVICES

A health unit is a locally autonomous unit which operates under the direction of a local board composed of representation from the various government councils in the area. The health unit is financed jointly by local taxes and grants from the provincial government. The health unit board hires the staff and assists in setting up the program. The health unit staff is mainly for preventive work and carries out various health education programs, school health examination programs, communicable disease control and health inspections of restaurants etc. A health unit is begun at the initiative of the local people and receives assistance from the provincial government.

In areas that are remote and do not have other medical services the provincial government operates a Municipal Nursing Service. This service is not designed to compete in any way with regular medical service but to supply a limited service to areas which have no hospital or doctor, poor transporation facilities, not enough population to support a hospital or a doctor, and a low level of living. When located in the boundaries of a health unit the activities of the municipal nurse are directed by the health unit. Municipal nursing is a declining service in that as an area develops economically and socially and becomes more accessable to regular medical services the municipal nursing service is withdrawn. For example, at Peers there was a municipal nurse but since there is now an all weather road to Peers and also a doctor and a hospital in Whitecourt it is felt by Department of Public Health officials that this service is no longer essential.

LAW ENFORCEMENT

Table J-II gives a summary of the numbers and types of law enforcement officials in C. D. 14. Table J-13 gives a summary of crime statistics for 1963 obtained in interview with some of the above officials. Respondents indicated that these figures would be fairly typical of any year but the number of offences seems to be rising slowly in Edson and Whitecourt probably because of increasing population. The number of offenses has decreased in Hinton since construction was completed on the pulp mill and the more permanent employees have become established. An increase in offenses can be expected in Whitecourt when construction starts on the mill there and also if major expansion takes place in the Hinton mill due to the number of temporary and transient workers. The statistics for Evansburg seem quite high probably because this detachment patrols the beaches on Lake Wabamun and west to Evansburg. Many of the liquor and traffic offenses would occur here and this area is not in C. D. 14.

Table J-II

TYPES OF LAW ENFORCEMENT OFFICIALS

1963

	R.C.M.P.	Town Constables	Magistrates	Highway Patrol R.C.M.P.	Total
Edson	4	5	1	3	13
Hinton	2	3	1		6
Evansburg	3			2	5
Whitecourt	2	2	_	_	4
Total	11	10	2	5	28

Source: Department of Industry and Development.

SUGGESTED GUIDELINES FOR CONSIDERATION IN PREPARATION OF THE OVERALL ECONOMIC AND SOCIAL DEVELOPMENT PROGRAM

For purposes of this report, a brief summary together with the identification of major problems and suggested solutions are outlined for each of the major topics. Suggestions for the program are included to assist local communities in developing overall economic and social action programs and are not intended to be dictatorial. Instead, they should be used as guidelines for future consideration.

Sections of this report which deal with various government departments are not intended to be critical of these departments, but are intended as an evaluation of some of the policies which they administer as seen from the position of someone not directly involved in the mechanics of administration. It is obvious that anyone outside a department cannot understand all the intricacies of the problems but it is hoped that the following comments will be of value to these departments in conducting their own evaluations.

POPULATION AND EDUCATION

SUMMARY

One of the most significant population trends evident in C. D. 14, as in Alberta, is the trend to urban residence. Farms are becoming larger and farmers fewer. More people are being employed in industry and services and fewer in agriculture. Accompanying this trend to urban residence is a declining sex ratio,* an increasing birth rate, and a declining death rate. There is a trend toward the concentration of the population in and near the centre of five trading areas.

The educational level of the population is lower than the provincial average, and this may provide some problems in adjustments to urban living and in competing for jobs requiring skills and education. The "dropout" rate is very high in C. D. 14 with between 50% and 70% of the students leaving school between grades 9 and 12. C. D. 14, like most rural areas, has trouble attracting and keeping qualified teachers and also there is some problems with raising enough money to offer an educational program comparable to that offered in urban areas.

PROBLEMS

Several problem areas can be seen which will need some special attention. These problems are listed below and a detailed discussion of each problem area with some suggested solutions follows. This is not an exhaustive list of problem areas and the suggested solutions are alternatives only and other unmentioned solutions may be just as effective. Problem areas seem to fall into the following categories.

1. Adult education - education levels are low and in order to adapt to changing conditions, additional education will be required.
2. Rural-urban migration causes dislocations in the trade and service sectors of the economy. Some programs to facilitate adjustments are required.

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* See page 77

3. The school dropout rate is very high and with the trends to urban residence and increasing education requirements for most jobs, this trend, if discontinued, will maintain low education levels and unemployment.
4. Rural school divisions find it difficult to attract and retain competent teachers with the specialized skills to deal with the unique problems of education in rural areas. If education in rural areas is to approach urban areas in quality, a solution to this problem must be found.
5. Rural areas also lack a broad tax base which can contribute enough funds for an adequate educational program. Some solution to this problem must be found if maximum economic growth is to be achieved in the region, the province, and the nation.

SUGGESTED GUIDELINES

Adult Education

General

One of the most significant population trends in C. D. 14 and in Alberta is the trend to urban living. Farms are becoming larger and farmers fewer. This trend is not occurring with enough rapidity to allow all farms to be economic units and thus the problem of rural poverty exists. One solution is to facilitate rural-urban migration.

Financial Assistance

In order to be successful in urban living a person must be able to obtain employment which will provide an adequate income. This necessitates some training. Many persons have a basic education which is lower than the minimum required for entrance into training in most specialized skills. This makes necessary an upgrading program in basic education. This program should be designed so that it is available at a cost within the reach of those most in need of it, i.e. those who are in no position to expand their farming operation to an economic unit or those who have, at present, no special training or skills. These people will probably not be able to pay for the course or to make an adequate living while attending the course. Financial assistance is desirable in both of these areas.

Teaching Method

Another "cost" to the person involved in such a course is a cost to him in social status. The traditional role of a student is subordinate to that of a teacher. A person who already feels his inadequacies in terms of making a living and education, and who is placed in this further subordinate position may find the situation painful and may become discouraged easily and withdraw from the course. This points up the necessity of a different approach to teaching than the traditional teacher-student approach.

The student in this case is not a rebellious and unmotivated adolescent but a highly motivated adult. The teacher's role could become one of a "co-ordinator of learning" rather than an instructor and the student becomes a colleague rather than a subordinate. In this situation it may be advisable to avoid the use of present school teachers unless they can adapt to this different method of teaching.

Course Content (Basic Education)

The course content should contain the essentials of the regular junior high and high school curriculum but should be highly concentrated and require an eight to ten hour day for those enrolled. The course should contain the essentials for grade 12 or grade 10 depending on the student's choice of a vocation.

Counselling

Vocational choice should be made after intensive consultation with an employment counsellor. Choice should consider such factors as aptitude, anticipated place of residence, anticipated employment opportunities (both short and long range), etc.

Vocational Training

Such facilities as are presently available can be used for this phase of the education program. Adequate financial assistance should be given throughout and a man should not find it necessary to be separated from his family while at school due to lack of finances.

Training in Urban Living

In addition to necessary training in making a living it is also necessary to know how to live in a new environment. Most of the people who receive additional education will find it necessary to live in large urban centres. These people will be moving from an area in which they are acquainted with everybody within a 10 to 20 mile radius to an area where they will probably never meet ¼ of the people in their own block. They are moving from an area where everybody discusses and is involved in community problems to an area where they may not even have the feeling of living in a community. They will need to make new friends, develop new shopping habits, develop new recreational and cultural interests, and become involved in a meaningful way with urban life. Many migrants solve the problems of this transition by moving to cities where they have relatives but others have not been able to overcome these problems, have become dissatisfied, and have returned to the rural areas. A discussion course in the problems and requirements of urban living would facilitate adjustments and remove some of the anxiety from prospective migrants.

Results of Rural Urban Migration

Another problem that is associated with rural urban migration is that there are fewer people remaining in rural areas. The retail and service outlets are dependent upon the demand for their services and if the demand is reduced then the income of the people in these services is reduced. Since migration is a relatively slow process the downward trend in income is hardly noticable and the decision to move or sell the business does not seem imminent but is likely to be a slow process of gradually losing resources. Unlike the farmer whose land increased in value over time the retail merchants business continually decreases in value as people move from the area until he could not sell the business at any price and he is unable to make a living by retaining it. New and better roads can influence the rapidity and extent of this decline also. A program should be developed to acquaint people in retail and service businesses with the direction and possible extent of migration trends and the resulting effect on their businesses. Steps should then be taken to develop an assistance program where necessary and desired.

Dropouts

General

The dropout rate in C. D. 14 is high (50-70%). Since most of the people involved must seek work in a society where education is valued and skills and special training are almost a necessity, this high rate should cause some concern to residents of C. D. 14 and all those connected with education and economic development.

Contributing Factors

The factors which contribute to an individual dropping out of school are many and some are inherent in the structure of the educational system. One of these factors in the educational system itself is the practice of failing a certain proportion of the students in grade 12. Among the many other contributing factors can be found the following:

1. Lack of or improper parent motivation. This refers to parents' lack of interest in children's academic achievements, lack of homework supervision, and lack of encouragement for post secondary education.
2. Students are required to take courses which have little or no relation to past life experiences. Since these students will be required to live in a world which is different than the one in which they are at present living, this factor is not bad in itself. However, it takes special teacher qualifications and interest in order to achieve success.
3. Although most teachers are conscientious in their efforts to educate children there are inevitably a few who make learning an extremely unpleasant experience for the pupil. Uninspired and uninspiring teachers can contribute to the high dropout rate.
4. A major contributing factor can be the availability of unskilled employment which looks inviting because of the seemingly high pay in the immediate future.

Some Suggestions for Solutions

Some of these contributing factors have solutions and some do not. Although some solutions are achieved more easily than others, education problems are so emotionally laden that no solution is easy to achieve. However, the following is a list of some suggestions that may be considered in attempting to solve the dropout problem.

1. The use of public education programs to acquaint parents with the importance of education and its importance in contributing to financial success and personal satisfactions. Parents could be given a short course on what is expected of them in assisting

the student scholastically. Perhaps the local Parent-Teacher's Association or Home and School group could take this as an annual project.

2. The number, type, and scope of courses could be broadened so that the student could find courses which filled his individual needs.
3. More intensive student counselling beginning at an early age.
4. The personal contact and consultation between the teaching staff and students, perhaps through some system of advisors, could supplement the work of the student counsellor and also encourage the student to greater academic achievement.
5. Teachers could be made more aware of the problems which rural students may have when exposed to courses designed for middle class urban students. Teachers should be allowed enough flexibility in teaching methods and course content to deal with unique situations. This requires teachers with special qualifications and training.

Teachers

General

Rural school divisions often have trouble attracting and holding competent teachers. The lack of competent teachers directly affects the academic performance of students as well as the dropout rate. Both of these factors are of direct concern to the school divisions in C. D. 14.

Contributing Factors

The difficulty which rural areas have in attracting and holding competent teachers is again due to many factors. Some of these are listed below:

1. Lower salaries than cities (this is not true of the Edson School Division).
2. Fewer cultural activities available in rural areas than in cities.
3. Many rural areas are lacking in available supplementary education courses and professional growth opportunities.
4. Teachers in rural school divisions often must teach subjects other than those they are trained to teach.

5. Often there are uncertainties as to housing availability and quality.

Suggestions for Possible Solutions

Solutions for these problems are difficult in rural areas because of distances from major urban centres and lack of money to pay good teachers. Teacher quality is also difficult to establish objectively. Some solutions to teacher problems can be suggested as follows:

1. Salaries must be more than competetive in order to partially overcome some of the other anticipated disadvantages.
2. Teachers should be assigned only to their major field of preparation.
3. Teachers should be relieved, as much as possible, from routine duties by the employment of an adequate number of secretarial and custodial personnel.
4. The teacher-pupil ratio must be kept within a desirable range.
5. The school division should encourage and provide opportunities for professional growth among its staff.

Finance

General

If the Edson School Division and the Lac Ste. Anne School Division are in any way typical of rural school divisions then it costs more to educate a student in rural areas than in urban areas. The cost per student in the Edson School Division in 1964 was $425.94 and in the Lac Ste. Anne School Division it was $411.69. The Alberta average cost per student was $399.72. Also, if educational facilities are an indication of education quality then the high cost of rural education will be inferior to the urban education. As stated above, rural areas also have education problems which urban areas do not have and the solution to these problems requires money. Most of the educational financing in the province comes through the School Foundation Program but school divisions also have an opportunity to raise additional funds through a Supplementary Requisition.

The School Foundation Program

Grants under the School Foundation program are paid under the following categories:

1. On a per capita basis for students according to grade and program.
2. On a per capita basis for teachers according to training.
3. For transportation and maintenance of pupils.
4. On a percentage of the total of the above items for administration.
5. On a set scale for capital expenditures.

These grants are on the same basis across the province. The underlying assumption here is that if equal expenditures are made that equal education will result. It has been indicated in the above discussion that education costs are not equal across the province and also it has been indicated that similar education quality would not result even if costs were similar.

School divisions are permitted to raise additional funds through a Supplementary Requisition. Rural areas are again handicapped due to the lack of an industrial base to provide a large assessment. The only industrial assessment that many rural areas could have (that of pipe and power lines) is denied them.

If maximum economic and social development is to be realized then education must be given on the basis of need and not on the basis of equal expenditures. Low densities of population in rural areas will not allow schools on a similar scale to urban schools, therefore, in order to provide a similar education, costs per student will be much higher in rural areas. Teachers are more difficult to attract to rural areas and this will again necessitate higher costs. Rural students have special problems because of a difference in cultural background and this may make program modifications necessary and again raise the cost of rural education. According to Menzies[1/], much of the urban poverty is due to the migration of people from rural areas. If this is to be changed additional education expenditures must be made in rural areas.

[1/] Poverty in Canada, by M. W. Menzies, Manitoba Pool Elevator, Wheat Pool Building, Winnipeg, 1965.

GOVERNMENT

SUMMARY

Several departments of the provincial government have regional offices in C. D. 14. These offices each carry out their own program and are each responsible to their various departments in Edmonton. The Department of Municipal Affairs is responsible for the government of most of the area with the towns and villages as the only actual local governments. Most of the actions of government in the area are directed from Edmonton.

In addition to local and provincial units of government, the federal government also has several regional offices in C. D. 14. These include the R.C.M.P., the Post Office, and the National Employment Service.

Many of the provincial and federal services provided to the area are not paid for out of funds acquired from the area and so there is a considerable economic benefit which accrues to C. D. 14 from the government payroll. The approximate provincial government yearly payroll for C. D. 14 is $680,000.

With all these various governmental bodies operating in C. D. 14, some problems of co-ordination and program overlapping occurs. There is also a lack of overall regional planning. Policies which were developed to fill certain needs are continued even if the need no longer exists. Each government unit also keeps statistics on the basis of its own administrative regions.

PROBLEMS

In summary, several problem areas are evident:

1. Lack of co-ordination between government departments.
2. There is no co-ordinated plan for area development.
3. There is a lack of local participation in government.
4. In the recent past the Homestead policy has been inadequate in promoting successful farming operations.
5. There is a lack of active development boards to promote orderly subdivision development.
6. Statistics cannot be put to their best use because of a lack of coterminous administrative boundaries among government departments.

SUGGESTED GUIDELINES

Government Co-ordination

Government, although theoretically considered a single unit administered from a central cabinet, is in actual practice a number of units or departments, each carrying out its own programs and policies with a minimum of co-ordination with other departments. Examples of lack of co-ordination between departments are probably evident throughout the province but one outstanding example which has occurred in C. D. 14 is the lack of co-ordination between land sales, and the Department of Highways and Education. Land is sometimes sold in small blocks which may be separated from each other and from the already developed areas. The owner of the land needs access to this land and so petitions the Dept. of Highways to build a road. An expensive road which serves only one farmer does not make sense economically and places an additional burden on the taxpayer. The land owner moves on the land and then needs school bus service to take his children to school. The school division must then modify and extend school bus service to this farm and again the additional cost is felt by the taxpayer. The school division then turns again to the Department of Highways to have the road upgraded so that the school bus can travel in any weather and again Highways must build the road and the bill is sent to the taxpayer in one form or another. If the three departments in this example had co-ordinated their efforts this land could be sold in blocks which could easily be serviced by roads and school bus at a minimum cost to all concerned and also with a minimum of frustration on the part of the landowner who must continually be requesting work and (in his mind at least) not receiving satisfaction. This is only one example of where co-ordination would be of benefit and undoubtedly many more could be cited.

Co-ordinated Planning

Government departments on the regional and provincial levels should be encouraged to work together to develop a short run, intermediate and long range plan for the co-ordinated development of any area in the province. Census Division 14 is the pilot project area and a Technical Panel of regional personnel from all departments of government in the census division has been formed. Perhaps this panel could be used for this purpose on the regional level. An advantage of such a co-ordinated plan would be that isolated pressure groups would have difficulty encouraging the spending of public money for purposes not of maximum benefit. An example of this nature in C. D. 14 was the building of the road north from Edson to Windfall. When the Windfall plant was first established, groups in Edson, wanting the trade of the people to be employed there, pressured the government to build a connecting road. The road was started but only after a shorter and more satisfactory road was built to Whitecourt and the employees established a trading pattern in Whitecourt. The Edson group is now no longer interested in the road. A co-ordinated development plan would bring this sort of activity to a minimum.

Local Participation

The major part of local municipal government in C. D. 14 is carried out by the Department of Municipal Affairs in Edmonton. From the point of view of low administrative cost and operating efficiency this is probably a good system. These low costs are probably due to the use of professional judgements in decision making and the economies of scale. However, from the point of view of "government by the people" where the ideal is to have the people become responsible for their own government, this system of government from Edmonton falls far short of the ideal. Perhaps some of the advantages of both systems could be achieved by:

1. Making municipal units large enough to be able to take advantage of some of the economies of scale and,
2. Instituting courses for those most directly involved in local government so that decisions can be made intelligently on the basis of fact. The processes and alternatives involved in local governments today are extensive and complicated and such a course would lead to improved decision making and thus more efficient local government.

Returning local government to the people and taking into account the above suggestions would be one method of attempting to achieve both the value of efficiency and the value of "government by the people".

The Homestead Policy

The Homestead Policy has been in effect for many years and has been modified according to the changing needs and adjustments in farming practices. It remains a popular act in the sparsely settled areas of the

The success of the Homestead Policy could only be measured against a standard of performance for which it was designed. If the Policy was designed to provide a person with a viable farm immediately, it is not fulfilling its purpose. On the other hand, if the Policy was designed to provide a prospective farmer with land which would be developed over time, and presumably become a viable farm, then it probably has a good record.

From the point of view of maximum use of resources, human, land and capital, the Policy may not be the most useful legislation. Land could be cleared more efficiently by working large acreages and involving large expenditures of capital. The substitution of capital for labour should increase the returns to labour. As a result, other methods of disposing of provincial lands could be considered if the primary aim was to maximize returns from the land. This may not be true when considering the maximum satisfaction that could be derived by homesteaders.

Surveys have indicated that the homesteaders that have succeeded are grateful for the assistance provided by the policy.

In summary, the many aspects of the Homestead Policy cannot be evaluated unless the objectives of the Policy are identified, and standards established to measure its performance. Perhaps further investigation of these factors would be in order.

Regional Planning Commissions

Some of the towns, villages and improvement districts in C. D. 14 have development boards. These boards are composed of local people, organized under the direction of the Department of Municipal Affairs, to plan and control the subdivision of land in order to prevent the haphazard and uncontrolled development of land for non agricultural purpose. These boards have only local authority. More comprehensive planning over a wider area could be achieved by forming a regional planning commission for C. D. 14. This body could be encouraged to work with local rural development committees to develop a coordinated plan for the region.

Regionalization and Statistics

In the province of Alberta as in many other provinces in Canada, various departments of government have found it convenient to divide the province into regions. Each department establishes its own administrative regions for its own purpose without regard to the regions of other departments. In some cases regions have been delineated on the basis of physical geography. Other regional boundaries have been chosen arbitrarily in order to divide the province into areas of approximately the same amount of administrative work. Others have delineated regions on what seems to be an ad hoc basis which is difficult to explain. Each of the various departments of government keeps statistics according to its own regions. Such an arrangement makes it extremely difficult to analyze trends in resource use and economic development and in turn, makes it difficult to formulate planning and economic policy. Therefore it is suggested, although the task is a gigantic one, that departments whose policies affect economic development, should jointly make a reappraisal of their administrative regions. It is also suggested that any reorganization of such administrative regions consider as a base the functional social and economic areas of the province.

AGRICULTURE

SUMMARY

Agriculture is the weakest sector of the economy. It is characterized by low farm incomes, relatively poor land, occasional adverse climatic conditions and small farms. Approximately two-thirds of the farm operators supplement their incomes with earnings from non-farm employment. The majority of the farm land appears to be better suited to the production of livestock than to the growing of cereal crops. More data is required on soils, climate, and the relative returns from both agricultural and non-agricultural enterprises to fully assess the agricultural potential of the area.

The percentage of farm operators 55 years of age and over is 36.6% in C. D. 14 compared to 29.5% for Alberta. Generally, it appears that the older operators are more financially distressed than the rest of the farmers.

In an effort to determine the degree of low farm income, information was gathered to determine the number of farmers who (a) had gross farm sales in excess of $250 per year but less than $2,500 (b) had a total capital value of less than $25,000 and (c) who worked off the farm for fewer than 25 days a year. In 1961, 285 farmers were in this category of which 129 were over 55 years of age. Furthermore, approximately one-third, or 357, out of the total of 973 farmers were 55 years of age, and accounted for approximately two-fifths of those that were termed financially distressed.

The number of farms has declined steadily since 1951 from 1,309 to 973 in 1961. On the other hand, the average income from the sale of agricultural products has doubled from 1951 to 1964 to $2,519, which is comparatively low by provincial standards. However, non-farm earnings of approximately $2,100 supplemented the average farm income to make the total average income $4,629 in 1964. The proportion of farmers engaged in non-farm employment is extremely high compared to the provincial average.

The income from the sale of cattle constitutes the greatest single source of farm revenue. However, the income per animal is approximately one-half of the provincial figure. The probable reasons for the relatively low returns from cattle are that most of the calves are sold as stockers and the quality of the cattle is only average. Undoubtedly, the potential cattle population could be doubled and perhaps tripled on the land presently occupied.

The production of cereal grains is confined largely to the eastern edge of the agricultural land. Yields compare favourably with the rest of the province, and the expansion of field crops will depend, to a large extent, on the further study of soils and climate.

Farm management practice and the level of technology are reflected by the time available to work on farms by the high percentage of part-time farmers. A large proportion of the farmers are residential and do not have the incentive to use modern farm management practices. It would appear in the majority of cases, that the necessity for farm enlargement is secondary to the improvement of the existing holdings.

The use of credit appears to be minimal in many cases, a situation which is evidently the personal preference of many of the residents. Only one farm out of 10 appears to be having difficulty in obtaining the amount and kind of credit desired. It is suggested that the present aspirations for credit will be modified as the agricultural economy improves.

Until recently there has not been a resident district agriculturist in the area. This has undoubtedly been a handicap to many of the farmers.

PROBLEMS

The major problems facing the agriculture sector are an outgrowth of the physical and social environment and the pattern in which the area developed. In many cases, climate is adverse to the production of crops because of either frost or excessive rain fall. Furthermore, many of the settlers in the area started from small capital investments and consequently have had some difficulty in building a viable unit. Finally, many of the present farmers are residential or part time farmers and do not rely on the sale of agricultural products for the major source of their income. Major problems facing the agricultural sector include:

1. Difficulty of operators to adopt modern technology and recommended farm management practices because of insufficient use of the Agricultural Extension Service, lack of financial resources, relatively small farms, small improved acreages per farm, and inability of the part-time farmer to devote necessary attention to the farming operations.
2. Although more information is necessary on climate and soils, it appears that considerable farm land is marginal for farming.
3. Returns from beef cattle are proportionately lower per animal than in the rest of the province because most cattle are sold as stockers and quality is not high.
4. Agricultural services, such as marketing facilities, seed cleaning plants, feed mills, machinery, fertilizer and chemical outlets, are inadequate, primarily due to the fact that the aggregate demand has not been sufficient to warrant their establishment.

5. Relatively little use of credit, a situation which appears to be associated with the high proportion of part time farmers and personal aspirations.
6. A high proportion of older farmers and the inability of some to perform sufficient work to maintain high production and the difficulty of obtaining skilled farm workers to assist them in busy seasons.
7. The high investment in machinery and equipment per acre of improved land.
8. Lack of mobility of some farmers because of low educational levels.

SUGGESTED GUIDELINES

Agricultural Extension Service

One of the most important factors which may improve the socio-economic position of the agricultural sector would be an increased use of the Agricultural Extension Service. This applies particularly in I. D. 78 and 95 where only an estimated 8% of the farmers have been in contact with this service. Improvement District 109 is much better where one-half of the farmers appear to have used the services supplied by the Extension Branch, Department of Agriculture.

Rehabilitation and Alternate Land Use

It would appear desirable to institute a program whereby the operator on marginal land could dispose of his holdings and transfer to another area or migrate into the industrial sector. Furthermore, alternatives could be made available to the elderly farmers to either sell under such a policy or dispose of their land, less the house, in return for an annuity or similar financial arrangement. They could maintain their residence on the premises if desired. Similar arrangements could be made for land that might best be transferred from agriculture to other uses. Associated with such a program would be rehabilitation, training, and resettlement.

Farm Enlargement and Credit

Alternatives for the farmer with small improved acreages include clearing and brushing more land for pasture, breaking land for hog and crop production, or the purchase of additional land. Specific credit arrangements may have to be made to supply the necessary finances.

Agricultural Services

In conjunction with programs designed to improve the conditions on the farm, attention could also be directed to the services required by the farm sector. In some instances, further study is required to determine the feasibility of the establishment of institutions such as a feed mill or seed cleaning plant.

INDUSTRY

SUMMARY

The majority of the industry in Census Division 14 is related to natural gas and oil and forestry. Industry is classified as primary, secondary or tertiary according to the kind of good or service produced and the stage of production.

Primary industry refers to industries which deal with the initial stage of production which includes forestry, agriculture, mining and fishing. Combined, they represented a value of $50 million in 1961, with oil and natural gas responsible for over 80% of the total. Forestry ranked second. Interestingly, in 1951, forestry also reached second but coal production dropped all the way from first to fourth.

Secondary industry includes manufacturing and construction. Manufacturing plants in the area include the pulp mill, planing and saw mills, bakeries, the dairy, the newspaper and other small enterprises. Building and road construction and projects such as gas and telephone lines, dam construction, etc. are included in the construction category. In 1961 the value of secondary industry reached $52 million, an increase of $44 million over 1951. Generally, manufacturing exceeded construction figures in both years.

Tertiary industry refers to the non-goods producing sector of the economy such as retailing and wholesale trade, business and community services, recreation, education and government. Significant trends indicate an increase of 61% in retail establishments, a 36% increase in the average dollar value of sales and an increase of 75% in the number of personal services and businesses.

Employment figures for the 1951 - 1961 period show increases in all categories of the Standard Industrial Classification except fishing and trapping, agriculture and mines, oil and gas. Largest employment increases were noted for forestry, construction and retail and wholesale trade.

The pulp industry will continue to be the prime mover of the local economy. Other favourable developments include the establishment of gas and oil processing plants, the resources railroad and perhaps a rejuvination of the coal industry. Agriculture will probably continue to be a relatively low income sector, partially due to the high percentage of residential and part time farmers.

The area will become more self-sufficient so far as the tertiary industries are concerned because of the projected increase in population and the resultant increase in number of trade and service establishments.

PROBLEMS

1. Even though the area has developed at an extremely rapid rate, the presence of vast reserves of resources is encouraging to further development. Various industrial programs for the area have been initiated and others have been announced. Probably the major problem to further development is the lack of adequate markets and the costs of transportation.
2. Other problems include the availability of skilled labour and the lack of adult training programs.

SUGGESTED GUIDELINES

Industrial Development

The high degree of local entrepreneurship, coupled with the availability of resources indicates there is a great potential for industrial development. An optomistic endeavor at the present time is the mining and processing of peat moss. A chip board or particle board factory, or other miscellaneous wood industries seem appropriate. Further refinement of petroleum and natural gas may be feasible. The market for coal, limestone and other industrial minerals might expand as new technology develops.

FORESTRY

SUMMARY

Forestry is the dominant industry in the local economy, a position which will be further solidified when another pulp mill becomes established in the Whitecourt area. It is estimated that approximately 40% of the total labour force engaged in the production of products for markets outside the area is directly connected with the forest industry. Furthermore, a similar fraction of the employment in the services sector is dependent on forestry. The advent of another pulp mill would alter the pattern of the use of forest products.

The forestry industry is presently in a state of transition. The quota system for the allocation of timber rights has just been introduced and will probably require some adjustments as dictated by experience and testing. North West Pulp and Power may elect to incorporate its reserve area into their lease in 1968. Finally, the boundaries of the yellow, green and brown zones have not been reviewed for the whole area.

The area has shifted in the last decade from a saw timber to a pulpwood economy and will probably remain as such for the forseeable future. Over half of the available sawtimber is located in the pulp leases. The quantity of sawtimber produced annually could be substantially increased provided that satisfactory arrangements could be made with the pulp companies. The annual production of lumber presently is in the neighborhood of 40 million board feet and could probably be doubled.

The estimated annual potential cut of pulpwood in pulpwood sized timber on a sustained yield basis is approximately 920 thousand cords. Considering that the cut in the 1964-65 fiscal year amounted to approximately 400 thousand cords, and that additional supplies will be required for the proposed mill at Whitecourt, it appears that the quantity of pulpwood available is only slightly in excess of potential requirements, if smaller trees only are used for pulpwood. An additional 400,000 cords can be cut annually if sawtimber is utilized for pulpwood.

The Department of Lands and Forests has recently undertaken a comprehensive land classification program where minor adjustments were made to the boundaries of the green and yellow zones and a new classification, the brown zone, was established. The major criteria for the allocation of land was its suitability for the production of either forest or agricultural products. Other factors were considered as well and included such items as soil and water conservation.

Another major concern regarding the industry is the presence of a number of settlers in the forest area. In some cases the settlers are undergoing severe hardships due to the lack of services and inability to expand their holdings. For this reason, the settlers may sell to the government if they so desire and the land on which they are now located would revert back to forestry.

PROBLEMS

1. The major problem is to ensure an adequate and continuous supply of timber for both the sawtimber and pulpwood operations. On the other hand, outlets are required for the liberal quantities of aspen.
2. Delineation of the region into zones for forestry, agricultural or other uses is also difficult to achieve to the satisfaction of all concerned. Considerable study has been devoted to this problem and more will be undertaken shortly.
3. Currently there are a substantial number of farms located in the green zone. This represents a major problem in the long range planning of certain provincial departments. The presence of farmers within the green zone is a matter requiring serious consideration. At the present time these farmers can dispose of their land to the government or to other individuals but cannot purchase additional Crown land in the forest area.

SUGGESTED GUIDELINES

Public Relations

The importance of the forests and related enterprises does not appear to be fully appreciated by the local population. More public relations programming would appear to be in order.

Forest Improvement

Forest improvement programs designed to increase the productivity of the land have been undertaken. This program could be accelerated as economics dictate.

Economic Studies

Studies are necessary to determine the relative returns, both economic and psychic, from various uses of land in the area.

Rehabilitation

A policy designed to permit rehabilitation of settlers out of the green zone is necessary, if the settlers wish to leave.

Market Research

Continuous investigations of markets for wood and wood products are necessary. This applies particularly to aspen.

Multiple Use

In some cases it may be desirable to have multiple uses for specific lands. Further study is needed to determine the effect of incorporating such a policy.

Area Delineation

Long term requirements of various forest products should be ascertained so far as possible, in order that the delineation of the various zones can be made. This is usually done on the basis of market requirements and the suitability of the land to produce specific commodities.

RECREATION AND TOURISM

SUMMARY

As this area's population increases and its people have more time to devote to leisure living, more recreation areas will be established, plus additions to existing facilities to help meet the demand. Census Division 14 is ideally situated with respect to present and potential resources and demand for recreational facilities. Its recreational potential has hardly been exploited and each year the demand for recreational facilities becomes greater. Evidence of the increased demand is reflected in tourist trade statistics, which indicate a 629 per cent increase over the 1946 - 1963 period for Alberta. Areas such as Census Division 14 that are richly indowed with natural resources can benefit immeasurably from this trend as accommodation, access and other facilities improve.

Among Alberta's major industries, recreation and tourism ranks third in value. However, C. D. 14's share of this value is somewhat less than 5 per cent. The area can provide for increasing recreational demands for the raw resources available. If fully developed, they can provide the base for one of the most impressive recreation areas in the west.

PROBLEMS

1. Geography is part of C. D. 14's problem when it comes to recreation and tourism, for it is less than one-half days drive from Edmonton to Jasper and most tourists just pass through. There is a need for more facilities to attract and accommodate visitors.

2. Many areas in C. D. 14 lay claim to being among the last wilderness retreats in the province and it has been expressed that certain government departments are jeopardizing these places through industrialization, etc.

3. Improved access to scenic and recreational attractions in the form of new and/or improved roads and the expansion and promotion of facilities at these attractions are needed to meet the public's demands.

4. The attractions of C. D. 14 are not advertised sufficiently. The travelling public must be made more aware of various facts, figures, scenery, etc. and in order for this to be accomplished there needs to be regional co-operation.

SUGGESTED GUIDELINE

Tourist Development

There are no outstanding tourist attractions within the borders of Census Division 14. However, the utilization of the natural attractions of the Coal Branch area e.g. mineral springs, caves, abandoned mines, ghost towns, mountainous terrain and hunting and fishing, into a comprehensive tourist complex offers unlimited possibilities. If C. D. 14 is to realize fully its tourism and recreational potential then interested parties must abandon their "wait and see" attitude and develop their resources.

Winter Recreation

More emphasis upon the development of winter sports' facilities, particularly skiing. Factors in favour of such development are a large population base to draw from and the natural suitability of the area.

Wilderness Areas

Reservations have been expressed by local people, conservationist groups, etc. concerning increasing encroachments into wilderness areas by private industry and government. More unified opposition to "alleged" encroachments are necessary to preserve this and other such areas for future recreational pastimes.

Sport Fishing

Some of the better sport fishing streams in Alberta are situated on the western slopes of C. D. 14. However, fish are not that plentiful! More adequate fish hatcheries are needed in order to restore proper fish balances in streams.

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Table A-1

MONTHLY AND ANNUAL AVERAGES OF TEMPERATURE (^{o}F)

Station	Type of Normal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year	Element
Edson	1	8.4	13.8	23.6	37.2	48.2	53.9	58.7	56.2	48.7	38.4	23.5	12.5	35.3	MT
	1	18.7	26.1	35.9	50.2	62.3	67.5	73.0	70.6	62.6	51.2	33.4	21.5	47.8	MX
	1	-1.9	1.4	11.2	24.1	34.0	40.2	44.4	41.8	34.8	25.5	13.6	3.4	22.7	MN
Embarras	6	-8.6	-3.0	12.2	31.8	47.3	56.6	63.1	59.7	49.1	36.6	16.4	-0.2	30.1	MT
	6	1.3	8.5	25.1	43.6	59.1	68.6	74.8	71.1	58.3	44.6	23.8	8.6	40.6	MX
	6	-18.4	-14.4	-0.8	19.9	35.5	44.5	51.4	48.2	39.8	28.5	8.9	-8.9	19.5	MN
Entrance	1	12.6	16.6	25.0	37.7	47.7	53.5	58.7	56.0	49.3	40.4	26.8	16.6	36.7	MT
	1	24.0	29.6	37.1	51.2	62.5	57.3	74.0	71.1	63.8	53.2	37.5	27.6	49.9	MX
	1	1.1	3.6	12.9	24.2	32.8	39.6	43.3	41.0	34.8	27.5	16.0	5.6	23.5	MN
Peavine	3	6.9	12.3	23.4	39.2	50.7	55.9	61.2	58.4	50.6	50.8	24.6	12.6	36.4	MT
	3	15.1	22.6	34.2	51.6	61.5	71.6	74.7	71.4	63.2	53.0	33.8	21.1	47.8	MX
	3	-1.3	2.0	12.6	26.8	39.9	40.2	47.7	45.4	38.0	28.6	15.4	4.1	25.0	MN
Whitecourt	3	5.0	10.5	21.8	36.9	48.3	54.4	59.7	56.5	48.5	38.0	21.7	8.8	34.2	MT
	3	14.8	22.8	33.5	49.2	62.0	66.9	72.9	69.2	60.9	50.0	31.7	18.5	46.1	MX
	3	-4.8	1.8	10.1	24.6	34.6	41.9	46.5	43.8	36.1	26.0	11.7	-0.9	22.3	MN

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Table A-2

MONTHLY AND ANNUAL PRECIPITATION IN INCHES

Station	Type of Normal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year	Element
Edson	1	0.02	0.02	0.07	0.38	1.97	3.59	3.66	3.16	1.48	0.37	0.17	0.09	14.98	R
	1	9.80	7.30	8.80	6.80	0.80	0.00	0.00	0.00	1.50	6.10	8.60	9.00	58.70	S
	1	1.00	0.75	0.95	1.06	2.05	3.59	3.66	3.16	1.63	0.98	1.03	0.99	20.85	P
Entrance	1	0.04	Tr	0.05	0.46	1.99	3.59	2.72	3.10	1.68	0.59	0.12	0.07	14.41	R
	1	7.70	7.30	9.20	7.60	1.10	0.00	0.00	0.00	1.30	5.20	8.30	8.00	55.7	S
	1	0.81	0.73	0.97	1.22	2.10	3.59	2.72	3.10	1.81	1.11	0.95	0.87	19.98	P
Mayberne Lookout	6					1.70	4.19	4.43	3.43	1.59	0.39				R
	6					6.60	1.40	0.00	0.10	7.10	9.20				S
	6					2.36	4.33	4.43	3.44	2.30	1.31				P
Peavine	4	0.00	0.04	0.04	0.50	1.69	3.24	3.72	3.19	1.27	0.30	0.13	0.10	14.22	R
	4	11.10	8.10	7.70	3.30	1.30	0.00	0.00	0.00	0.30	5.60	5.10	7.60	50.10	S
	4	1.11	0.85	0.81	0.83	1.82	3.24	3.72	3.19	1.30	0.86	0.64	0.86	19.23	P
Whitecourt	6	0.01	0.02	0.03	0.46	1.76	2.87	3.66	3.33	1.26	0.43	0.16	0.09	14.28	R
	6	11.10	9.70	7.80	7.40	0.90	0.10	0.00	0.00	0.50	6.40	6.90	9.50	60.30	S
	6	1.12	0.99	0.81	1.20	1.85	2.88	3.86	3.33	1.31	1.07	0.85	1.04	20.31	P
Whitecourt Lookout	6					2.26	3.16	4.01	3.15	1.53	0.48				R
	6					1.20	0.20	Tr	0.00	1.60	7.10				S
	6					2.38	3.18	4.01	3.15	1.69	1.19				P

R - Rain, S - Snow, P - Total precipitation

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Table B-1

LAND CLASSIFICATION AND USE 1951

Number and Percentage of Farms by Size and Location

Size of Farm	LOCATION									
	Alberta		Census Division 14		Improvement District 78		Improvement District 95		Improvement District 109	
Acres	No.	%	No.	%	No.	%	No.	%	No.	%
Under 3	195	0.2	1	0.1	1	0.1	-	-	-	-
3 - 9	1,203	1.4	9	0.7	7	0.9	1	0.3	1	0.4
10 - 69	2,039	2.4	41	3.1	20	22.6	9	3.0	12	5.0
70 - 239	23,712	28.1	567	43.3	347	45.4	138	45.5	82	34.1
240 - 399	24,562	29.1	417	31.9	252	32.9	85	28.1	80	33.2
400 - 559	12,071	14.4	162	12.4	87	11.4	45	14.9	30	12.4
560 - 759	7,664	9.1	74	5.7	36	4.7	18	5.9	20	8.3
760 - 1,119	6,364	7.6	24	1.8	12	1.6	6	2.0	6	2.5
1,120 - 1,599	3,309	3.9	10	0.8	2	0.3	-	-	8	3.3
1,600 - 2,239	1,536	1.8	2	0.1	1	0.1	-	-	1	0.4
2,240 - 2,879	582	0.7	-	-	-	-	-	-	-	-
2,880 & over	1,073	1.3	2	0.1	-	-	1	0.3	1	0.4
Total	84,315	100.0	1,309	100.0	765	100.0	303	100.0	241	100.0

Source: Census of Canada 1961, Agriculture.

Table B-[illegible]

LAND CLASSIFICATION AND USE 1956

Number and Percentage of Farms by Size and Location

Size of Farm	LOCATION									
	Alberta		Census Division 14		Improvement District 78		Improvement District 95		Improvement District 109	
Acres	No.	%	No.	%	No.	%	No.	%	No.	%
Under 3	78	0.1	-	-	-	-	-	-	-	-
3 - 9	884	1.1	3	0.3	1	0.2	-	-	2	1.0
10 - 69	2,073	2.6	22	2.0	16	2.5	2	0.8	4	2.0
70 - 237	19,559	24.6	458	41.2	288	44.3	110	41.3	60	30.4
240 - 399	22,438	28.2	363	32.5	214	32.9	87	32.7	62	31.3
400 - 559	12,069	15.2	147	13.2	75	11.5	44	16.5	28	14.1
560 - 759	8,228	10.4	66	5.9	35	5.4	13	4.9	18	9.1
760 - 1,119	6,887	8.7	38	3.4	16	2.5	7	2.6	15	7.6
1,120 - 1,599	3,551	4.5	9	0.8	3	0.5	1	0.4	5	2.5
1,600 - 2,239	1,670	2.1	3	0.3	-	-	-	-	3	1.5
2,240 - 2,879	730	0.9	-	-	-	-	-	-	-	-
2,880 & over	1,267	1.6	4	0.4	1	0.2	2	0.8	1	0.5
Total	79,424	100.0	1,113	100.0	649	100.0	266	100.0	198	100.0

Source: Census of Canada, 1956.

Table B-3

LAND CLASSIFICATION AND USE 1961

Number and Percentage of Farms by Size and Location

Size of Farm	LOCATION											
	Alberta		Census Division 14		Improvement District 78		Improvement District 95		Improvement District 96		Improvement District 109	
Acres	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 3	238	0.3	-	-	-	-	-	-	-	-	-	-
3 - 9	683	0.9	3	0.3	1	0.2	1	0.5	-	-	1	0.6
10 - 69	1,813	2.5	14	1.4	8	1.3	5	2.3	-	-	1	0.6
70 - 239	15,408	21.0	337	34.6	230	38.6	73	34.3	-	-	34	21.0
240 - 399	19,385	26.6	33	34.1	222	37.2	62	29.1	-	-	47	29.0
400 - 559	11,763	16.1	145	14.9	75	12.6	40	18.8	-	-	30	18.6
560 - 759	8,421	11.6	75	7.7	36	6.0	15	7.0	-	-	24	14.9
760 - 1,119	7,498	10.2	49	5.0	18	3.0	14	6.6	1	50.0	16	9.8
1,120 - 1,559	3,969	5.4	13	1.3	3	0.5	2	0.9	-	-	8	4.9
1,600 - 2,239	1,842	2.5	2	0.3	1	0.2	1	0.5	-	-	-	-
2,240 - 2,879	766	1.0	1	0.1	1	0.2	-	-	-	-	-	-
2,880 & over	1,426	1.9	3	0.3	1	0.2	-	-	1	50.0	1	0.6
Total	73,212	100.0	973	100.0	596	100.0	213	100.0	2	100.0	162	100.0

Source: Census of Canada, 1961

Table B-4

LAND USE AND CLASSIFICATION

Area and Condition of Farm Land - Alberta, Census Division and Improvement Districts - 1956 - 1961

				CONDITION OF FARM LAND						
	AREA OF FARM LAND			IMPROVED LAND				UNIMPROVED LAND		
Location	Total Area	Area Owned	Area Rented	Total	Under Crops	Summer Fallow	Pasture	Other	Total	Woodland	Other
1956											
Alberta	45,970,395	29,707,927	16,262,468	23,746,113	14,850,171	7,091,264	1,279,894	524,784	22,224,282	2,891,128	19,333,154
C. D. 14	372,293	314,792	56,501	115,527	76,992	20,487	11,684	6,164	256,766	100,264	156,502
I. D. 78	192,487	163,507	28,980	65,480	45,100	11,319	6,021	3,040	127,007	51,787	75,220
I. D. 79	--	--	--	--	--	--	--	--	--	--	--
I. D. 95	97,865	84,428	13,437	23,243	15,091	3,344	3,429	1,379	74,622	24,559	50,063
I. D. 96	--	--	--	--	--	--	--	--	--	--	--
I. D. 109	81,941	66,857	15,084	26,804	16,801	6,024	2,234	1,745	55,137	23,918	31,219
1961											
Alberta	47,228,653	32,012,784	15,215,869	25,288,527	15,614,839	7,449,758	1,670,391	553,539	21,940,125	2,138,137	19,801,959
C. D. 14	359,975	299,551	60,424	132,916	90,447	18,569	16,826	7,074	227,059	66,673	160,386
I. D. 78	192,542	158,071	34,471	80,767	54,480	12,049	9,981	4,257	111,775	45,160	66,615
I. D. 79	--	--	--	--	--	--	--	--	--	--	--
I. D. 95	75,940	63,401	12,539	22,662	16,872	2,267	2,417	1,106	53,278	14,138	39,140
I. D. 96	14,196	13,345	851	382	175	--	102	105	13,814	1,000	12,814
I. D. 109	77,297	64,734	12,563	29,105	18,920	4,253	4,326	1,606	48,192	6,375	41,817

Source: Census of Canada, Agriculture, 1956 and 1961.

Table B-5

CONDITION OF FARM LAND

Alberta, Census Division and Improvement Districts - 1956 - 1961

		AVERAGE NO. OF ACRES OF IMPROVED LAND PER FARM					AVERAGE NO. OF ACRES OF UNIMPROVED LAND PER FARM		
	Location	Total Improved Farm Land	Crops	Summer Fallow	Pasture	Other	Total Unimproved Farm Land	Woodland	Other
1956	Alberta	299.0	187.0	89.3	16.1	6.6	279.8	36.0	229.2
	C. D. 14	103.8	69.2	18.6	10.5	5.5	230.7	90.1	140.6
	I. D. 78	100.9	69.5	17.4	9.3	4.7	195.7	79.8	115.9
	I. D. 79	--	--	--	--	--	--	--	--
	I. D. 95	87.4	56.7	12.6	12.9	5.2	280.5	92.3	188.2
	I. D. 96	--	--	--	--	--	--	--	--
	I. D. 109	135.4	84.9	30.4	11.3	8.8	278.5	120.8	157.7
1961	Alberta	345.4	213.3	101.8	22.8	7.6	299.7	29.2	270.5
	C. D. 14	136.6	93.0	19.2	17.3	8.3	233.4	68.5	164.9
	I. D. 78	135.2	91.4	20.4	16.8	7.1	187.5	75.8	111.7
	I. D. 79	--	--	--	--	--	--	--	--
	I. D. 95	106.4	79.2	10.6	11.4	5.2	250.1	66.4	183.7
	I. D. 96*	191.0	87.5	--	51.0	5.3	690.7	500.0	640.7
	I. D. 109	179.7	116.8	26.3	26.7	9.9	297.4	39.3	258.1

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* Only two farmers.

Source: Table B-4

Table B-6 PERCENTAGE OF TOTAL AREA UNDER CROPS BY TYPE OF FIELD CROPS

Alberta, Census Division 14 and Improvement Districts - 1956 & 1961

	CERTAIN FIELD CROPS (%)									
Location	Wheat	Oats	Barley	Rye	Flax Seed	Mixed Grains	Total Tame Hay	Oats For Hay	Potatoes	Other Fodder Crops
1956										
Alberta	36.1	20.0	24.7	0.6	3.5	1.3	11.0	--	0.1	2.7
C. D. 14	13.4	26.6	23.7	0.1	0.1	0.8	30.2	--	0.6	4.5
I. D. 78	16.7	29.0	22.4	0.2	0.1	0.8	26.8	--	0.5	3.5
I. D. 79	--	--	--	--	--	--	--	--	--	--
I. D. 95	8.0	20.9	15.7	--	0.2	0.5	44.6	--	1.5	8.6
I. D. 96	--	--	--	--	--	--	--	--	--	--
I. D. 109	9.2	25.2	34.4	--	--	0.9	26.3	--	0.2	3.8
1961										
Alberta	36.4	17.1	18.6	1.1	2.3	2.4	16.0	3.3	0.1	0.7
C. D. 14	11.8	24.3	16.0	0.0	--	2.1	40.4	3.2	0.8	1.4
I. D. 78	15.6	26.0	14.9	0.0	--	1.6	37.8	2.4	0.7	1.0
I. D. 79	--	--	--	--	--	--	--	--	--	--
I. D. 95	6.0	23.9	9.9	0.0	--	1.6	48.4	5.5	2.2	2.5
I. D. 96*	--	--	--	--	--	--	34.1	45.5	--	20.4
I. D. 109	6.4	20.6	24.7	0.0	--	4.1	39.2	3.3	0.2	1.5

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* Only two farms.

Source: Table B-5

Table B-7

YIELD OF PRINCIPLE CROPS, CENSUS DIVISION 14

1959 - 1964

	SPRING WHEAT		OATS FOR GRAIN		BARLEY		FLAXSEED		TAME HAY	
Crop Year	Average Yield bushel	Number Of Entries	Average Yield bushel	Number Of Entries	Average Yield bushel	Number Of Entries	Average Yield bushel	Number Of Entries	Average Yield tons	Number Of Entries
1959	23.1	36	43.1	36	30.4	35	7.5	2	1.23	35
1960	23.8	27	39.9	29	27.0	26	10.0	1	1.54	30
1961	23.6	38	47.8	28	34.7	27	--	--	1.45	29
1962	21.7	32	39.5	26	29.7	25	--	--	1.73	27
1963	23.1	34	41.6	31	29.1	28	12.5	2	1.22	30
1964	23.0	29	38.9	23	31.3	21	--	--	1.37	27

Source: Dominion Bureau of Statistics, Special Tabulation.

Table B-8

LAKES STOCKED WITH TROUT IN CENSUS DIVISION 14

C. N. Reservoir
Lambert
Millers
Obed
Pedley
Kinky
Wildhorse No. 1
Mary Gregg
Mt. Park Pond
Muskiki
Coal Valley Pitts
Cadomin
Yellowhead
Fairfax
Blue

Table B-9

LAKES AND FISH IN C. D. 14

1965

Name of Lake	Species	Access	Managed For
Fairfax	rb	Excellent	SF
Mary Gregg	rb eb	Fair	SF
Coal Valley	rb	Excellent	SF
Foothils	rb	Excellent	SF
Kinky	ag	Excellent	SF
Wildhorse	rb	Excellent	SF
Millers	rb eb	Excellent	SF
Pedley	rb	Excellent	SF
Obed	rb	Excellent	SF
Blue	eb	Good	SF
Rock Lake	lt	Excellent	SF
Gregg	np lwf	Good	SF
Graveyard	np lwf	Excellent	SF
Jarvis	np lwf	Excellent	SF
Cache	np lwf	Excellent	SF
Bear Lake	np p	Good	SF
Mystery	rb	None	SF
Sinkhole	np	Fair	SF
Chip	np Burbot	Excellent	C
Shining Bank	np lwp p	Excellent	C
Fickle	np lwf	Excellent	CS
McLeod	np lwf	Excellent	CS
Little Lake	np lwf	Excellent	CS
Buck	np lwf	Excellent	CS

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rb - Rainbow Trout
eb - Eastern Brook Trout
lwf - Lake Whitefish
np - Northern Pike
lt - Lake Trout
ag - Arctic Grayling

SF - Sports Fishery
C - Commercial
CS - Commercial & Sports

Source: Fish and Game Branch, Alberta Department of Lands and Forests.

Table B-10

TIMBER PRODUCTION AND VALUES FOR CENSUS DIVISION 14

Product	April 1, 1964 to March 31, 1965		April 1, 1951 to March 31, 1952		April 1, 1961 to March 31, 1962	
	Quantity Manufactured	Total Value	Quantity Manufactured	Total Value	Quantity Manufactured	Total Value
Lumber - Conif. (FBM)	41,448,829	$2,305,798	81,574,013	$3,085,945	31,557,528	$1,143,329
Lumber - Poplar (FBM)	--	--	1,562,685	43,490	135,724	3,560
Railway Ties (Pieces)	210,493	352,613	1,125,967	1,970,442	109,160	191,030
Round Timber (Lin. Ft.)	696,201	20,886	671,500	20,145	186,710	5,601
Mine Ties (Pieces)	540	540	100	100	--	--
Plywood Conif. (FBM)	298,699	12,544	--	--	576,103	22,468
Plywood Poplar (FBM)	--	--	--	--	444,700	11,118
Pulpwood (Cords)	388,224	6,793,919	--	--	267,241	4,676,718
Slabs (Cords)	224	448	1,663	3,325	167	333
Christmas Trees	1,000	500	--	--	100	50
Fuelwood (Cords)	8	40	4	20	--	--
Total		$9,487,288		$5,123,467		$6,054,207

Note: The above quantities manufactured for the fiscal year 1951-52 are from Licensed Timber Berths and Special Timber Permits only. The 1961-62 figures include N.W.P.&P. Purchase Stock and Custom Mill Production.

Source: Survey and Planning Branch of Alberta Forest Service, 1952, 1962 and 1965.

	BIGORAY	CARSON CREEK	CARSON CREEK NORTH	JUDY CREEK AND JUDY CREEK SOUTH	PEMBINA*	VIRGINIA HILLS	WINDFALL	LOVETT RIVER	PINE CREEK	C.D. 14 TOTAL
Table B-11 To December 31, 1964 - Estimated Crude Oil Production in Census Division 14 by Fields (000's of Standard Barrels)	737	4	5,518	24,548	107,855	12,295	499			151,366
Table B-12 To December 31, 1964 - Raw Gas Production in Census Division 14 by Fields (billions of cubic feet)	840	59,675	7,353	17,070	94,649	5,612	154,514	8	115,462	455,383

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* The estimated production of that portion of the Pembina field which falls within C. D. 14.

Source: Industry and Development Report on C. D. 14.

Table B-13

ESTABLISHED RESERVES OF GAS IN CENSUS DIVISION 14

FIELD	INITIAL MARKETABLE GAS-BCF*	MARKETABLE GAS PRODUCED TO DEC. 31, 1963	REMAINING MARKETABLE GAS-BCF	HEATING VALUE BTU/CF
Beaver Creek	40	--	40	1,050
Bigoray	21	--	21	1,080
Berland River	300	--	300	1,000
Berland River West	15	--	15	1,020
Blue Ridge	13	--	13	1,100
Brazeau River	150	--	150	1,040**
Carson Creek	180	--	180	1,050
Carson Creek North	170	--	170	1,100
Carson Lake	10	--	10	1,050
Edson	900	--	900	1,030
Goodwin Lake	15	--	15	1,070**
Judy Creek	210	1	209	1,080
Lovett River	80	--	80	1,040**
Mountain Park	25	--	25	1,090**
Obed	10	--	10	1,040**
Pembina	1,069	158	911	1,100-1,180
Pine Creek	545	36	509	1,050
Virginia Hills	70	--	70	1,070-1,160
Windfall	493	--	493	1,040
Wolf Lake	11	--	11	1,060**

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* BCF - Billions of cubic feet.

**Currently considered beyond economic reach.

Source: Oil and Gas Conservation Board reserves of crude oil, gas, natural gas liquids and sulphur, province of Alberta.

Table B-14 Part I PULPWOOD CORDS IN C. D. 14

(in thousands of cords)

	WHITE SPRUCE	BLACK SPRUCE	BALSAM	PINE	TOTAL	ASPEN
Yellow Zone	426	97	12	354	889	2,574
Green Zone (outside pulp leases & reserves)	1,112	252	264	3,030	4,658	2,440
Pulpwood Leases	4,702	1,143	1,118	13,306	20,269	5,610
Pulpwood Reserves	1,748	2,026	307	6,946	11,027	2,794
Total C. D. 14	7,988	3,518	1,701	23,636	36,843	13,418

Source: Forest Surveys and Planning Branch Department of Lands and Forests.

Note: Above volumes apply to tree diameters 4" - 9", generally.

Table B-14 Part II SAWTIMBER IN C. D. 14

(million foot board measure)

	WHITE SPRUCE	BALSAM	PINE	TOTAL	ASPEN
Yellow Zone	26	.5	7	33	124
Green Zone (outside pulp leases & reserves)	352	85	431	868	52
Pulpwood Leases	2,533	361	3,684	6,578	2,492
Pulpwood Reserves	1,530	100	1,943	3,573	3,235
Total C. D. 14	4,441	546	6,065	11,052	5,903

Source: Forest Surveys and Planning Branch Department of Lands and Forests.

Note: Above volumes apply to tree diameters 10"+, generally.

Table B-15

BIG GAME POPULATIONS
IN
EDSON REGION (C.D. 14) 1962 - 65

Extrapolated Minimum Numbers of Animals 1962-65 (Mid-Winter)

W M U	Area in Sq. Miles	Moose	Deer	Elk	Bighorn	Goat	Caribou	Grizzly	Black Bear
F 328	12	12	12	24				1	2
F 330	120	120	120	240				4	20
F 338	727	727	727	1,454				25	100
F 340	2,340	2,574	2,340	1,170				40	250
F 342	540	540	540	810				25	90
F 344	1,377	1,377	1,377	964				70	230
F 346	1,861	1,489	1,861	186				40	300
F 348	1,008	302	907	307				5	170
F 350	1,174	1,174	1,174	0				50	200
F 352	126	164	126	38				6	21
S 434	43	26	43	64	25	0	10	3	18
S 436	234	140	234	351	150	25	20	15	25
S 438	936	1,217	936	936	300	25	0	50	160
S 440	1,089	1,089	1,089	971	1,500	400	450	75	180
S 442	648	389	324	259	200	100	100	35	110
Totals	12,235	11,340	11,804	7,669	2,175	550	580	444	1,876

Source: Big Game Annual Aerial Surveys by Dept. of Lands and Forests.

Table B-16

HARVEST POTENTIAL AND ECONOMIC VALUE IN C.D. 14, 1965

Species	Number	Harvestable Surplus[1]	Value Per Animal[2] (Dollars)	Value of Annual Harvest (Dollars) ((b) x (c))
Moose	11,350	(25%) 2,837	360 (4x90)	1,021,320
Elk	11,800	(20%) 2,360	450 (5x90)	1,062,000
Deer	7,700	(33%) 2,567	180 (3x60)	462,060
Bighorn	2,175	(10%) 217	2,000 (4x500)	534,000
Goat	550	(20%) 110	600 (3x200)	66,000
Caribou	600	(20%) 125	1,200 (4x300)	150,000
Grizzly	444	(10%) 44	3,000 (6x500)	132,000
Cougar	200	(25%) 50	1,000 (10x100)	50,000
Black Bear	1,900	(20%) 380	250 (5x50)	95,000
Totals	36,719	8,690		$ 3,572,380

[1] Harvestable surplus refers to the percentage of the population that can safely be cropped annually without overharvesting. Because of the differences in minimum breeding ages and rates of twinning between species the percentage that can be harvested differs. Thus for elk 20% can be cropped while for deer 33% can be taken.

[2] Values compiled from "1961 Fishing and Hunting in Canada" plus Alberta Outfitter Association statistics.

Table B-17

BIG GAME HARVEST AND MONEY SPENT IN ATTAINING HARVEST, 1963

Species	Harvest[1]	Number Hunters[1]	Dollars Spent Per Hunter	Total Expenditure ((b) x (c))
Moose	1,500	12,000	110.00[2]	1,320,000
Deer	900			
Elk	680			
Bighorn (Non-Res.)	30			
Goat (Non-Res.)	40			
Grizzly (Non-Res.)	10	80	1,100.00[3]	88,000
Black Bear (Non-Res.)	15			
Caribou (Non-Res.)	15			
Bighorn (Res.)	45			
Goat (Res.)	40			
Grizzly (Res.)	10	400	300.00[4]	120,000
Black Bear (Res.)	25			
Caribou (Res.)	20			
Totals	3,330	12,480		$ 1,528,000

[1] 1963 Big Game Harvest Report Project W-3-63, Job No. A-1, District 3.

[2] 1961 Fishing and Hunting in Canada.

[3] 1964 Alberta Outfitter Association economic report file # 200-56 (Stelfox).

[4] Calculated estimate by J.G. Stelfox 1965.

Table B-18

COAL RESERVES AND CLASSIFICATION BY LOCATION

	Estimated Reserves (Millions of Tons)	Classifications
Mountain Park	5,200	Group II
Coalspur	3,600	Group III
Smoky River	3,300	Group I
Brule	1,000	Group I
Prairie Creek	400	Group III
Whitecourt	70	Group I

Source: Industry and Development, Report on C. D. 14.

Notes: 1. These figures are now twenty years old and hence new and large discoveries are not taken into account.

2. These estimates are dependent upon assumptions of acceptable seam thickness and workable depth. Under current economic conditions, it would appear that most of these figures are quite optimistic. On the other hand, sufficient reserves exist to ensure that efficient coal mining operations will remain competetive in the market place.

Table C-1

POPULATION OF UNINCORPORATED PLACES OF 50 PERSONS OR MORE

Census Division 14

1956 and 1961

Place	I. D. #	1956	1961
Blue Ridge	109	195	233
Brule	96	91	93
Cadomin	79	109	106
Cecilia Park	95	a/	109
Cynthia	78	a/	165
Entrance	95	80	87
Glenwood & Grand Prairie Trail Communities	95	292	798 b/
Hornbeck	95	135	102
Marlboro	95	301	289
Millarville	95	a/	54 b/
Peers	78	98	128
Robb	79	a/	271
Whitecourt Subdivision	109	a/	470
Windfall	109	a/	101

Source: Census of Canada 1961, Bulletin SP-4, Page 63

a/ Not shown separately
b/ Includes other hamlets

Table C-2

POPULATION OF ALBERTA FIVE YEAR AGE GROUPS

1956

	MALE		FEMALE		TOTAL	
	#	%	#	%	#	%
0 - 4	76,937	6.8	72,760	6.5	149,694	13.3
5 - 9	64,443	5.7	61,377	5.5	125,820	11.2
10 - 14	49,696	4.4	47,622	4.3	97,318	8.7
15 - 19	40,772	3.6	39,714	3.5	80,486	7.1
20 - 24	42,361	3.8	40,481	3.6	82,842	7.4
25 - 29	45,763	4.1	42,138	3.7	87,901	7.8
30 - 34	42,934	3.8	42,640	3.8	85,574	7.6
35 - 39	40,261	3.6	38,693	3.4	78,954	7.0
40 - 44	35,895	3.2	33,485	3.0	69,380	6.2
45 - 49	31,574	2.8	27,528	2.5	59,102	5.3
50 - 54	27,662	2.5	22,015	1.9	49,677	4.4
55 - 59	22,733	2.0	18,278	1.7	41,011	3.7
60 - 64	18,829	1.7	15,198	1.3	34,027	3.0
65 - 69	18,252	1.7	15,544	1.1	31,796	2.8
70 - 74	14,385	1.3	10,667	.9	25,052	2.2
75 - 79	8,148	.7	6,295	.6	14,443	1.3
80 - 84	3,643	.3	3,063	.3	6,706	.6
85 - 89	1,281	.1	1,252	.1	2,533	.2
90 +	352	.03	445	.04	797	.07
Total	585,921	52.2	537,195	47.8	1,123,116	100.00

Source: Census of Canada 1956, Bulletin 19, Table 18

Table C-3

POPULATION BY 5 YEAR AGE GROUPS AND SEX FOR CENSUS DIVISION 14

1956

	MALE		FEMALE		TOTAL	
	#	%	#	%	#	%
Under 5	1,046	6.6	1,067	6.7	2,113	13.3
5 - 9	912	5.7	904	5.7	1,816	11.4
10 - 14	702	4.4	671	4.2	1,373	8.6
15 - 19	637	4.0	527	3.3	1,164	7.3
20 - 24	763	4.8	453	2.9	1,216	7.7
25 - 29	771	4.9	498	3.1	1,269	8.0
30 - 34	689	4.3	513	3.2	1,202	7.6
35 - 39	570	3.6	458	2.9	1,028	6.5
40 - 44	484	3.1	409	2.6	893	5.6
45 - 49	511	3.2	304	1.9	815	5.1
50 - 54	527	3.3	279	1.8	806	5.1
55 - 59	456	2.9	239	1.5	695	4.4
60 - 64	353	2.2	159	1.0	512	3.2
65 - 69	295	1.9	126	0.8	421	2.7
70 - 74	235	1.5	81	0.5	316	2.0
75 - 79	84	0.5	39	0.2	123	.7
80 - 84	45	0.3	19	0.1	64	.4
85 - 89	13	0.1	7	0.0	20	.1
90 +	---	--	---	--	---	--
Total	9,093	57.3	6,753	44.2	15,846	100.00

Source: Census of Canada 1956, Bulletin 19, Table 18

Table C-4

POPULATION BY FIVE YEAR AGE GROUPS AND SEX FOR ALBERTA

1961

	MALE		FEMALE		TOTAL	
	#	%	#	%	#	%
0 - 4	92,250	6.92	87,638	6.58	179,888	13.50
5 - 9	81,633	6.13	77,420	5.81	159,053	11.94
10 - 14	66,680	5.01	63,703	4.78	130,383	9.79
15 - 19	50,296	3.78	48,708	3.66	99.004	7.44
20 - 24	44,403	3.33	44,751	3.36	89,154	6.69
25 - 29	49,720	3.73	46,010	3.45	95,730	7.18
30 - 34	50,694	3.81	46,147	3.46	96,841	7.27
35 - 39	46,305	3.47	45,388	3.41	91,693	6.88
40 - 44	41,288	3.10	39,642	2.98	80,930	6.08
45 - 49	36,342	2.73	33,932	2.55	70,274	5.28
50 - 54	30,870	2.32	27,403	2.06	58,273	4.38
55 - 59	26,870	2.02	21,947	1.65	48,817	3.67
60 - 69	21,182	1.59	17,644	1.32	38,826	2.91
65 - 69	17,166	1.29	14,558	1.09	31,724	2.38
70 - 74	15,413	1.16	12,392	.93	27,805	2.09
75 - 79	10,649	.80	8,521	.64	19,170	1.44
80 - 84	5,170	.39	4,398	.33	9,568	.72
85 - 89	1,918	.14	1,712	.13	3,630	.27
90 +	534	.04	647	.05	1,181	.09
Total	689,383	51.76	642,561	48.24	1,331,944	100.00

Source: Census of Canada 1961, Bulletin 1.2-2.

Table C-5

POPULATION BY 5 YEAR AGE GROUPS AND SEX FOR CENSUS DIVISION 14

1961

	MALE		FEMALE		TOTAL	
	#	%	#	%	#	%
Under 5	1,548	8.0	1,410	7.3	2,958	15.3
5 - 9	1,220	6.4	1,244	6.5	2,464	12.9
10 - 14	1,002	5.2	909	4.7	1,911	9.9
15 - 19	723	3.2	629	3.3	1,352	6.5
20 - 24	773	4.0	671	3.5	1,444	7.5
25 - 29	887	4.6	673	3.6	1,560	8.2
30 - 34	862	4.6	556	2.9	1,418	7.5
35 - 39	702	3.6	559	2.9	1,261	6.5
40 - 44	545	2.9	461	2.4	1,006	5.3
45 - 49	460	2.4	400	2.1	860	4.5
50 - 54	415	2.2	290	1.5	705	3.7
55 - 59	431	2.2	250	1.4	681	3.6
60 - 64	416	2.2	191	1.0	607	3.1
65 - 69	267	1.4	156	0.8	423	2.2
70 - 74	216	1.1	96	0.5	312	1.6
75 - 79	140	0.7	69	0.4	209	1.1
80 - 84	47	0.2	21	0.1	68	0.3
85 - 89	27	0.1	12	0.1	39	0.2
90 - 94	1	-	2	-	3	-
95 +	1	-	-	-	1	-
Total	10,683	55.0	8,599	45.0	19,282	100.0

Source: Census of Canada 1961, Bulletin 1.2-2.

Table C-6

POPULATION BY BIRTHPLACE AND SEX

ALBERTA AND CENSUS DIVISION 14

1961

	ALBERTA			CENSUS DIVISION 14		
	Total	Male	Female	Total	Male	Female
Canada Total	1,043,195	533,815	509,380	15,226	8,174	7,052
Newfoundland	1,243	677	566	17	12	5
P. E. I.	2,411	1,344	1,067	31	24	7
Nova Scotia	8,862	4,725	4,137	93	61	32
New Brunswick	4,867	2,621	2,246	78	53	25
Quebec	14,207	7,866	6,341	296	202	94
Ontario	52,914	28,496	24,418	683	419	264
Manitoba	37,913	19,604	18,309	453	242	211
Saskatchewan	102,197	50,503	51,694	1,800	960	840
Alberta	788,034	402,588	385,446	11,185	5,895	5,290
British Columbia	29,074	14,624	14,450	577	300	277
Yukon & N. W. T.	1,473	767	706	13	6	7
United Kingdom	76,124	38,065	38,059	753	396	357
Other Commonwealth Countries	2,567	1,401	1,166	34	22	12
United States	51,500	25,718	25,782	648	382	266
European	151,397	85,931	65,466	2,571	1,676	895
Asiatic	6,120	3,926	2,194	31	24	7
Others	1,041	527	514	19	9	10
Total	1,331,944	689,383	642,561	19,282	10,683	8,599

Source: Census of Canada 1961, Bulletin 1.2-7, Table 5.1.

Table C-7

PER CENT POPULATION BY BIRTHPLACE AND SEX

ALBERTA AND CENSUS DIVISION 14

1961

	ALBERTA			CENSUS DIVISION 14		
	Total	Male	Female	Total	Male	Female
Canada Total	78.32	77.45	79.31	78.97	76.52	82.01
Newfoundland	0.09	0.10	0.09	0.09	0.11	0.06
P. E. I.	0.18	0.20	0.17	0.16	0.23	0.08
Nova Scotia	0.67	0.70	0.64	0.48	0.57	0.38
New Brunswick	0.37	0.38	0.35	0.41	0.50	0.29
Quebec	1.07	1.14	0.99	1.54	1.89	1.19
Ontario	3.97	4.13	3.80	3.54	3.92	3.07
Manitoba	2.85	2.84	2.85	2.35	2.26	2.44
Saskatchewan	7.67	7.33	8.05	9.34	8.99	9.69
Alberta	59.16	58.40	60.00	58.01	55.18	61.52
British Columbia	2.18	2.12	2.25	2.99	2.81	3.22
Yukon & N. W. T.	0.11	0.11	0.12	0.07	0.06	0.08
United Kingdom	5.72	5.52	5.92	3.91	3.71	4.15
Other Commonwealth Countries	0.19	0.20	0.19	0.18	0.21	0.14
United States	3.87	3.73	4.01	3.36	3.58	3.09
European	11.41	12.03	10.20	13.33	15.69	10.41
Asiatic	0.46	0.57	0.35	0.16	0.23	0.08
Others	0.08	0.07	0.08	0.10	0.08	0.12
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Table C-6

Table C-8

POPULATION BY ETHNIC GROUP AND SEX FOR ALBERTA

1961

	TOTAL		MALE		FEMALE	
	#	%	#	%	#	%
Total	1,331,944	100.00	689,383	51.74	642,561	48.27
British Isles	601,755	45.20	307,490	23.11	294,265	22.09
French	83,319	6.26	42,700	3.21	40,619	3.05
Austrian	15,904	1.19	8,465	0.63	7,439	0.56
Czech & Slovak	12,448	0.93	6,578	0.49	5,870	0.44
Finnish	3,662	0.27	1,882	0.14	1,780	0.13
German	183,314	13.76	94,364	7.08	88,950	6.68
Hungarian	15,293	1.15	8,585	0.64	6,708	0.50
Italian	15,025	1.13	8,156	0.61	6,869	0.52
Jewish	4,353	0.33	2,295	0.17	2,058	0.16
Netherlands	55,530	4.17	29,025	2.18	26,505	1.99
Polish	40,539	3.04	21,556	1.62	18,983	1.43
Russian	17,952	1.35	9,283	0.70	8,669	0.65
Scandinavian	95,879	7.20	50,906	3.82	44,973	3.38
Ukranian	105,923	7.95	54,978	4.13	50,945	3.83
Other European	24,967	1.87	13,569	1.02	11,398	0.86
Chinese	6,937	0.52	4,312	0.32	2,625	0.20
Japanese	3,721	0.28	1,914	0.14	1,807	0.14
Other Asiatics	1,845	0.14	1,020	0.08	825	0.06
Native Indian & Eskimo	28,554	2.14	14,476	1.09	14,078	1.06
Negro	1,307	0.09	685	0.04	622	0.05
Others & Not Stated	13,717	1.03	7,144	0.54	6,573	0.49

Source: Census of Canada 1961, Bulletin 1.2-5.

Table C-9

POPULATION BY ETHNIC GROUP AND SEX FOR CENSUS DIVISION 14

1961

	TOTAL		MALE		FEMALE	
	#	%	#	%	#	%
Total	19 282	100.00	10,683	56.49	8,599	43.51
British Isles	7,819	41.55	4,239	22.98	3,580	18.57
French	1,708	8.86	963	4.99	745	3.87
Austrian	170	0.88	102	0.53	68	0.35
Czech & Slovak	173	0.90	94	0.49	79	0.41
Finnish	67	0.35	40	0.21	27	0.14
German	2,831	14.76	1,564	8.19	1,267	6.57
Hungarian	114	0.59	77	0.40	37	0.19
Italian	212	1.10	138	0.72	74	0.38
Jewish	20	0.10	10	0.05	10	0.05
Netherlands	905	4.69	486	2.52	419	2.17
Polish	714	3.70	400	2.07	314	1.63
Russian	244	1.27	134	0.69	110	0.58
Scandinavian	1,651	8.56	924	4.79	727	3.77
Ukranian	1,520	6.88	840	4.36	680	2.52
Other European	632	3.28	391	2.03	241	1.25
Chinese	41	0.21	28	0.15	13	0.06
Japanese	17	0.08	10	0.05	7	0.03
Other Asiatics	31	0.16	27	0.14	4	0.02
Native Indian & Eskimo	215	1.15	109	0.57	106	0.58
Negro	48	0.25	32	0.17	16	0.08
Others & Not Stated	150	0.68	75	0.39	75	0.29

Source: Census of Canada 1961, Bulletin 1.2-5.

Table C-10

POPULATION BY SPECIFIED ETHNIC GROUPS FOR CENSUS DIVISION 14

1961

	C.D. 14	I.D. 78	I.D. 79	I.D. 95	I.D. 96	I.D. 109	Edson	Hinton	Whitecourt	Evansburg	Wildwood
Total	19,282	3,484	667	3,638	430	2,351	3,198	3,529	1,054	452	479
British Isles	7,819	1,206	167	1,454	132	1,187	1,437	1,376	472	188	200
French	1,708	108	75	455	120	169	208	452	82	20	27
German	2,831	612	99	519	20	355	420	511	118	116	61
Italian	212	2	22	42	18	22	43	58	31	1	1
Jewish	20	1	0	0	0	5	13	1	0	0	0
Netherlands	905	263	5	194	6	66	159	150	56	5	1
Polish	714	182	38	109	15	57	114	132	29	22	16
Russian	244	80	8	42	0	11	37	31	10	7	18
Scandinavian	1,651	237	46	374	27	207	254	278	140	29	59
Ukranian	1,520	498	47	150	11	116	207	285	83	53	70
Other European	1,156	240	158	165	42	70	225	184	47	10	15
Asiatic	89	1	1	6	0	9	18	40	7	1	6
Native	215	9	0	101	39	46	14	2	3	0	1
Others & Not Stated	198	53	1	27	0	31	49	29	4	0	4

Source: Census of Canada 1961, SP-2, p. 96

Table C-11

PERCENTAGE POPULATION BY SPECIFIED ETHNIC GROUPS FOR CENSUS DIVISION 14

1961

	C.D. 14	I.D. 78	I.D. 79	I.D. 95	I.D. 96	I.D. 109	Edson	Hinton	Whitecourt	Evansburg	Wildwood
British Isles	40.4	33.3	25.0	40.0	30.8	50.6	44.9	39.0	44.7	41.7	41.9
French	8.9	3.1	11.2	12.4	27.8	7.2	6.5	12.8	7.8	4.4	5.6
German	14.7	17.7	14.8	14.3	4.7	15.1	13.2	14.5	11.1	25.8	12.8
Italian	1.1	0.1	3.3	1.2	4.2	0.9	1.5	1.6	0.3	0.1	0.1
Jewish	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Netherlands	4.7	7.6	0.7	5.3	1.4	2.8	5.0	4.3	5.3	1.1	0.1
Polish	3.7	5.2	5.7	3.0	3.5	2.5	3.6	3.7	2.8	4.9	3.3
Russian	1.3	2.3	1.2	1.2	0.0	0.5	1.2	0.9	0.9	1.6	3.8
Scandinavian	8.6	7.8	6.9	10.3	6.2	8.8	7.9	7.9	13.3	6.4	12.3
Ukranian	7.9	14.3	7.1	4.1	2.7	4.9	6.5	8.1	7.9	11.8	14.7
Other European	6.0	6.8	23.7	4.5	9.6	3.0	7.0	5.2	4.5	2.2	3.1
Asiatic	0.5	0.0	0.2	0.2	0.0	0.4	0.6	1.1	0.7	0.0	1.3
Native	1.1	0.3	0.0	2.8	9.1	2.0	0.4	0.1	0.3	0.0	0.1
Others & Not Stated	1.0	1.5	0.2	0.7	0.0	1.3	1.5	0.8	0.4	0.0	0.8

Source: Census of Canada 1961, SP-2.

Table C-12

LOCATION OF SPECIFIED ETHNIC GROUPS FOR CENSUS DIVISION 14

1961

ETHNIC GROUP	TOTAL IN C. D. 14	NUMBER IN URBAN CENTRES	PER CENT IN URBAN CENTRES
British Isles	7,819	3,285	42.0
French	1,708	742	43.4
German	2,831	1,049	37.5
Italian	212	132	62.3
Jewish	20	14	70.0
Netherlands	905	365	40.3
Polish	714	275	38.5
Russian	244	78	32.0
Scandinavian	1,651	672	40.7
Ukranian	1,520	575	37.8
Other European	1,156	456	39.5
Asiatic	89	65	73.0
Native	215	19	8.8
Others & Not Stated	198	82	41.4

Source: Census of Canada 1961, Bulletin SP-2

Table C-13

POPULATION BY RELIGIOUS DENOMINATION AND SEX FOR ALBERTA

1961

	MALE		FEMALE		TOTAL	
	#	%	#	%	#	%
Adventist	2,560	0.19	2,627	0.21	5,187	0.40
Anglican	79,335	5.96	77,295	5.80	156,630	11.76
Baptist	21,482	1.61	20,988	1.58	42,430	3.19
Christian Reformed	5,880	0.44	5,272	0.40	11,152	0.84
Christian Science	800	0.06	983	0.07	1,783	0.13
Churches of Christ Disciples	1,343	0.10	1,345	0.10	2,688	0.20
Confucian & Buddhist	1,452	0.11	1,073	0.10	2,525	0.21
Evangelical Brethren	3,091	0.23	3,070	0.23	6,161	0.46
Greek Orthodox	25,716	1.93	21,637	1.63	47,353	3.56
Jehovah's Witnesses	3,704	0.28	3,819	0.28	7,523	0.56
Jewish	3,154	0.24	2,891	0.21	6,045	0.45
Lutheran	66,219	4.97	56,301	4.23	122,520	9.20
Mennonite	8,271	0.62	7,998	0.60	16,269	1.22
Mormon	12,671	0.95	12,866	0.97	25,537	1.92
Pentecostal	7,520	0.57	7,592	0.56	15,112	1.13
Presbyterian	29,290	2.20	26,047	1.95	55,337	4.15
Roman Catholic	155,643	11.69	143,098	10.74	298,741	22.43
Salvation Army	1,691	0.13	1,628	0.12	3,319	0.25
Ukranian (Greek) Catholic	18,947	1.42	16,313	1.23	35,260	2.65
United Church of Canada	212,675	16.00	206,252	15.45	418,927	31.45
Others	27,939	2.10	23,506	1.76	51,445	3.86
Total	689,383	51.76	642,561	48.24	1,331,944	100.02

Source: Census of Canada 1961, Bulletin 1.2-6.

Table C-14

POPULATION BY RELIGIOUS DENOMINATION AND SEX FOR CENSUS DIVISION 14

1961

	MALE		FEMALE		TOTAL		HIGHER THAN PROVINCE
	#	%	#	%	#	%	
Adventist	29	0.15	16	0.08	45	0.23	
Anglican	1,144	5.94	1,002	5.20	2,146	11.14	
Baptist	206	1.07	165	0.85	371	1.92	
Christian Reformed	166	0.86	152	0.79	318	1.65	
Christian Science	17	0.09	21	0.10	38	0.19	
Churches of Christ Disciples	17	0.09	9	0.04	26	0.13	
Confucian & Buddhist	1	0.00	1	0.00	2	0.00	
Evangelical Brethren	4	0.02	6	0.03	10	0.05	
Greek Orthodox	426	2.21	309	1.60	735	3.81	X
Jehovah's Witnesses	156	0.81	115	0.60	271	1.41	X
Jewish	8	0.04	10	0.05	18	0.09	
Lutheran	1,113	5.77	741	3.85	1,854	9.62	X
Mennonite	54	0.28	60	0.31	114	0.59	
Mormon	59	0.31	53	0.27	112	0.58	
Pentecostal	126	0.65	151	0.79	277	1.44	X
Presbyterian	287	1.49	174	0.90	461	2.39	
Roman Catholic	2,750	14.27	2,036	10.57	4,786	24.84	X
Salvation Army	8	0.04	6	0.03	14	0.07	
Ukranian (Greek) Catholic	261	1.35	183	0.95	444	2.30	
United Church of Canada	3,513	18.22	3,132	16.24	6,645	34.46	X
Others	338	1.75	257	1.34	595	3.09	
Total	10,683	55.41	8,599	44.59	19,282	100.00	

Source: Census of Canada 1961, Bulletin 1.2-6.

Table C-15

SAMPLE POPULATION

BY AGE CATEGORY, SEX AND PLACE OF RESIDENCE

1961

	NUMBER LIVING ON FARM				LIVING IN C. D. 14			
	Male		Female		Male		Female	
	#	%	#	%	#	%	#	%
Under 5	9	8.4	12	12.3	-	-	-	-
5 - 9	19	17.9	9	9.2	-	-	-	-
10 - 14	14	13.1	16	16.2	-	-	-	-
15 - 19	9	8.4	9	9.2	4	36.3	1	20.0
20 - 24	1	0.9	4	4.1	1	9.1	2	40.0
25 - 29	5	4.7	4	4.1	3	27.3	0	-
30 - 34	1	0.9	9	9.2	2	18.2	2	40.0
35 - 39	9	8.4	9	9.2	1	9.1	-	-
40 - 44	11	10.3	6	6.1	-	-	-	-
45 - 49	4	3.7	8	8.2	-	-	-	-
50 - 54	6	5.6	5	5.1	-	-	-	-
55 - 59	9	8.4	4	4.1	-	-	-	-
60 - 64	4	3.7	1	1.0	-	-	-	-
65 - 69	4	3.7	1	1.0	-	-	-	-
70 - 74	2	1.9	1	1.0	-	-	-	-
Total	107	100.0	98	100.0	11	100.0	5	100.0

Table C-16

POPULATION BY RURAL FARM, RURAL NON-FARM AND URBAN

1951, 1956, 1961, (1956 Definitions)

	ALBERTA				CENSUS DIVISION 14			
Year	Total	Rural		Urban	Total	Rural		Urban
		Farm	Non-Farm			Farm	Non-Farm	
1951	939,501	339,376	149,627	450,498	14,443	5,021	7,466	1,956
1956	1,123,116	327,201	160,091	635,824	15,846	4,909	8,377	2,560
1961	1,331,944	289,081	191,287	851,576	19,282	4,223	7,278	7,781

Source: Census of Canada 1961, Bulletin 1.1-7

Table C-17

PER CENT POPULATION BY RURAL FARM, NON-FARM AND URBAN

	ALBERTA			CENSUS DIVISION 14		
Year	Rural		Urban	Rural		Urban
	Farm	Non-Farm		Farm	Non-Farm	
1951	36.12	15.93	47.95	34.76	51.69	13.55
1956	29.03	14.05	37.02	30.88	52.77	16.45
1961	21.70	14.36	63.94	21.90	37.75	40.35

Table C-18

PER CENT OF FAMILIES BY NUMBER OF PERSONS

1961

Number of Persons	2	3	4	5	6	7	8	9
Alberta	27.7	20.2	22.2	14.7	8.2	3.7	1.8	1.7
Census Division 14	24.1	19.3	21.3	15.4	9.4	5.6	2.3	2.7

Table C-19

FARM OPERATORS BY AGE CATEGORY

FOR ALBERTA, CENSUS DIVISION 14 AND SAMPLE

	ALBERTA	SAMPLE	C. D. 14	C. D. 14
	%	%	#	%
Under 25	3.2	0	239	3.2
25 - 34	16.2	6	1,068	14.2
35 - 44	25.5	38	1,947	25.9
45 - 54	25.6	22	1,934	25.8
55 - 59	11.5	14	866	11.6
60 - 64	8.3	8	669	8.9
65 - 69	5.1	8	443	5.9
70 +	4.6	4	335	4.5
Total	100.0	100	7,501	100.0

Source: Census of Canada 1961

Table C-20

Sample (1964)

OPERATOR CLASSIFIED BY AGE

	NUMBER	PER CENT
20 - 24	0	0
25 - 29	2	4
30 - 34	1	2
35 - 39	8	16
40 - 44	11	22
45 - 49	4	8
50 - 54	7	14
55 - 59	7	14
60 - 64	4	8
65 - 69	4	8
70 - 74	2	4
Total	50	100

Table C-21

NUMBER AND PER CENT OF POPULATION IN LABOUR FORCE

1911 - 1961

	Population Total	Population 15 Years and over	LABOUR FORCE 15 YEARS AND OVER		
			Number	% of Total Population	% of Population 15+
Canada					
1911	7,191,624	4,818,585	2,698,481	37.52	56.00
1921	8,775,164	5,755,819	3,143,602	35.82	54.62
1931	10,363,240	7,086,083	3,908,117	37.71	55.15
1941	11,489,713	8,296,713	4,498,141	39.15	54.22
1951	13,984,329	9,742,092	5,276,639	37.73	54.16
1961	18,200,621	12,023,211	6,458,156	35.48	53.71
Alberta					
1911	374,295	253,299	160,811	42.96	63.49
1921	588,454	374,728	215,584	36.64	57.53
1931	731,605	492,627	285,740	39.06	58.00
1941	796,169	567,717	312,058	39.19	54.97
1951	939,501	652,695	353,497	37.63	54.16
1961	1,331,944	862,620	489,511	36.75	56.75

Source: Census of Canada 1961, Bulletin 3.1-1

Table C-22

POPULATION 15 YEARS OF AGE AND OVER BY EMPLOYMENT STATUS AND SEX

FOR INCORPORATED CITIES, TOWNS AND VILLAGES, CANADA, ALBERTA AND CENSUS DIVISION 14

1961

UNIT	POPULATION 15 YEARS AND OVER	LABOUR FORCE									
		TOTAL LABOUR FORCE	PER CENT OF POPULATION 15 YEARS AND OVER	EXPERIENCED LABOUR FORCE						PERSONS SEEKING WORK FOR THE FIRST TIME	
				Total		With Jobs		Looking for Work With Previous Work Experience			
				No.	% of Labour Force	No.	%	No.	%	No.	%
Canada	12,046,325	6,510,356	54.0	6,471,850	99.4	6,259,452	96.1	212,398	3.3	38,506	.6
Alberta	862,620	491,487	57.0	489,511	99.6	477,851	97.2	11,660	2.4	1,976	.4
C. D. 14	11,949	6,733	56.3	6,716	99.8	6,521	96.8	195	2.9	17	.3
Edson	2,063	1,174	56.9	1,174	100.0	1,148	97.8	26	2.2	-	.0
Hinton	2,051	1,321	64.4	1,317	99.7	1,274	96.4	43	3.3	4	.3
Whitecourt	656	433	66.0	432	99.8	414	95.6	18	4.2	1	.2

Source: Census of Canada 1961, Bulletin 3.1-3

Table C-23

POPULATION 14 YEARS OF AGE AND OVER BY EMPLOYMENT STATUS AND SEX

for week ending June 2, 1951

	CANADA	ALBERTA	C. D. 14*	EDSON
POPULATION 14 years of age & over				
Male	5,016,330	353,503	7,106	721
Female	4,933,407	313,509	5,144	682
Total	9,949,737	667,102	12,250	1,403
LABOUR FORCE				
Total Labour Force				
Male	4,130,802	291,511	6,031	615
Female	1,574,130	62,815	776	162
Total	5,704,932	354,326	6,807	777
Per cent of population 14 & over				
Male	82.3	82.5	84.9	85.2
Female	31.9	20.0	15.1	23.7
Total	57.3	53.1	55.6	55.4
Experienced Labour Force				
With jobs				
Male	4,057,987	289,006	5,961	608
Female	1,150,109	62,010	767	161
Total	5,208,096	351,016	6,728	769
Looking for jobs				
Male	63,845	2,263	63	7
Female	14,212	589	5	1
Total	78,657	2,852	68	8
Seeking work for first time				
Male	8,970	242	7	-
Female	4,502	186	4	-
Total	13,472	428	11	-
NOT IN LABOUR FORCE				
Total				
Male	852,439	57,920	1,075	106
Female	3,735,215	246,947	4,368	520
Total	4,587,654	304,867	5,443	626
Retired or voluntarily idle				
Male	322,636	24,414	467	49
Female	143,645	8,369	99	9
Total	465,681	32,783	566	58

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* The boundaries of the Census Division changed slightly between 1951 and 1961 so the figures are not strictly comparable.

Source: Census of Canada, 1951

Table C-24

LOCATION OF LABOUR FORCE 15 YEARS OF AGE AND OVER BY OCCUPATION DIVISION FOR CENSUS DIVISION 14

1961

OCCUPATION DIVISION	RURAL				URBAN*				CENSUS DIVISION 14			
	M	F	Total	%	M	F	Total	%	M	F	Total	%
Managerial	184	25	209	38.06	308	32	340	61.94	492	57	549	100
Professional & Technical	98	67	165	36.91	157	125	282	63.09	255	192	447	100
Clerical	53	50	103	27.17	109	167	276	72.83	162	217	379	100
Sales	50	32	82	34.59	84	71	155	65.41	134	103	237	100
Service & Recreation	116	130	246	36.88	145	276	421	63.12	261	406	667	100
Transportation & Communication	244	15	259	53.95	202	19	221	46.05	446	34	480	100
Farmers & Farm Workers	866	91	957	97.65	22	1	23	2.35	888	92	980	100
Loggers, Fishermen, Trappers & Hunters	513	2	515	75.85	164	-	164	24.15	677	2	679	100
Miners & Related Workers	194	-	194	86.23	31	-	31	13.77	225	-	225	100
Craftsmen, Production & Related Workers	679	10	689	48.84	713	9	722	51.16	1,392	19	1,411	100
Labourers	293	1	294	60.36	192	1	193	39.64	485	2	487	100
Total	3,290	423	3,713	56.76	2,127	701	2,828	43.24	5,417	1,124	6,541	100

* Urban - All cities, towns and villages 1,000 population and over.

Source: Census of Canada 1961, Bulletin 3.1-8

Table C-25

LABOUR FORCE 14 YEARS AND OVER BY OCCUPATION AND SEX, RURAL AND URBAN

CENSUS DIVISION 14

1951

	TOTAL		RURAL		URBAN	
	M	F	M	F	M	F
Managerial	386	38	295	29	91	9
Professional	95	104	62	84	33	20
Clerical	88	73	50	33	38	40
Agriculture	2,576	163	2,574	163	2	-
Other Primary	928	-	902	-	26	-
Manufacturing and Mechanical	506	6	416	2	90	4
Construction	207	1	167	1	40	-
Transportation and Communication	686	11	504	5	182	6
Commercial and Finance	68	81	48	56	20	25
Service	158	285	113	227	45	58
Labourers	293	3	248	3	45	-
All occupations	6,024	772	5,409	610	615	162

Source: Census of Canada 1951

Table C-26

NUMERICAL & PERCENTAGE DISTRIBUTION OF THE LABOUR FORCE
BY MAJOR SECTORS, ALBERTA
1911 - 1961

		Number (No.)	Per cent (%)
1911			
Agriculture		82,100	50.8
Services		41,468	25.7
Industry		38,042	23.5
	Total	161,610	100.0
1921			
Agriculture		114,874	53.2
Services		65,707	30.4
Industry		35,424	16.4
	Total	216,005	100.0
1931			
Agriculture		148,253	51.8
Services		88,346	30.9
Industry		49,449	17.3
	Total	286,048	100.0
1941			
Agriculture		145,173	50.4
Services		96,887	33.6
Industry		45,955	16.0
	Total	288,015	100.0
1951			
Agriculture		117,538	33.2
Services		160,162	45.3
Industry		76,198	21.5
	Total	353,898	100.0
1961			
Agriculture		109,196	22.3
Services		278,308	56.9
Industry		102,007	20.8
	Total	489,511	100.0

Source: "Alberta Industry and Resources, 1964" published by Alberta Bureau of Statistics, Department of Industry and Development, Government of Alberta.

Table C-27

LABOUR FORCE 14 YEARS OF AGE AND OVER BY OCCUPATION FOR EDSON AND ALBERTA

1951

	EDSON		ALBERTA		C. D. 14
	Total	%	Total	%	Total
Managerial	100	12.9	26,348	7.5	424
Professional	55	7.1	23,385	6.6	199
Clerical	78	10.0	29,299	8.3	161
Agriculture	2	0.3	115,096	32.5	2,739
Other Primary Industries	26	3.3	9,776	2.8	929
Manufacturing and Mechanical	94	12.1	28,378	8.0	511
Construction	40	5.2	18,514	5.2	208
Transportation and Communication	188	24.1	26,251	7.4	697
Commerce and Finance	45	5.7	22,589	6.4	149
Service	103	13.3	35,126	9.9	416
Labour	45	5.8	16,774	4.7	293
Other	1	0.2	2,362	0.7	70
Total	777	100.0	353,898	100.0	6,796

Source: Census of Canada 1951

TABLE E 1

FARM CAPITAL VALUES

	1961 1/		1961 1/		1965 2/	
	C.D. #14	PER CENT	ALBERTA	PER CENT	C.D. #14	PER CENT
TOTAL CAPITAL VALUE	16,[illegible]53,[illegible]00		[illegible]		1,[illegible]	
Under $950	---		[illegible]	[illegible]	---	---
950-1,949	7	.7	[illegible]	.4	---	---
1,950-2,949	[illegible]	[illegible]	[illegible]	[illegible]	---	---
2,950-3,949	[illegible]	4	[illegible]	1.[illegible]	---	---
3,950-4,949	[illegible]	4	1,1[illegible]	1.6	---	---
4,950-7,449	11[illegible]	11.[illegible]	[illegible],[illegible]17	4.8	1	
7,450-9,949	1[illegible]3	13.[illegible]	4,0[illegible]	5.6	[illegible]	4
9,950-14,949	[illegible]31	[illegible].7	[illegible]	12.3	[illegible]	1[illegible]
14,950-24,949	[illegible]	[illegible]	16,308	22.3	14	[illegible]
24,950-49.949	1[illegible]	14.1	[illegible]	30.2	[illegible]	40
49,950-99,949	[illegible]1	[illegible]	11,[illegible]	15.9	[illegible]	1[illegible]
99,950 and over	4	[illegible]	[illegible]	4.9	---	---
VALUE OF LAND & BLDGS	[illegible]		1,[illegible]		337,[illegible]35	
Under $950	[illegible]	.5	304	.4	---	---
950-1,949	4[illegible]	4.5	1,907	1.5	1	
1,950-2,949	[illegible]	5.7	1,[illegible]	[illegible]	---	---
2,950-3,949	[illegible]	9.2	[illegible]	[illegible]	---	---
3,950-4,949	[illegible]	8.0	[illegible],41[illegible]	[illegible]	---	---
4,950-7,449	[illegible]	26.7	8,164	11.[illegible]	[illegible]	[illegible]
7,450-9,949	[illegible]4	9.7	5,823	8.0	[illegible]	14
9,950-14,949	[illegible]	19.8	12,680	17.[illegible]	1[illegible]	[illegible]
14,950-24,949	111	11.4	1[illegible]	2[illegible].0	[illegible]	[illegible]
24,950-49,949	[illegible]	3.7	14,[illegible]	1[illegible]	10	[illegible]
49,950-99,949	[illegible]	.5	5,793	[illegible].9	---	---
99,950 and over	[illegible]	.3	1,5[illegible]	[illegible].1	---	---

SOURCE: 1/ Census of Canada 1961 Bulletin 5.3-3
2/ Farm Survey, Farm Economic Branch, 1965

TABLE E 2

FARM CAPITAL VALUES

	1961 1/		1961 1/		1965 2/	
	C.D. #14	PER CENT	ALBERTA	PER CENT	C.D. #14	PER CENT
VALUE OF MACHINERY	$3,834,200		[illegible]		$308,800	
All Farms Reporting	944		70,729		50	
0					1	2
Under $450	41	4.3	1,298	1.8	0	0
450-949	89	9.4	2,667	3.8	5	10
950-1,949	181	19.2	6,895	9.7	6	12
1,950-2,949	162	17.2	7,482	10.7	5	10
2,950-3,949	119	12.6	7,067	10.0	3	6
3,950-4,949	78	8.3	6,315	8.9	2	4
4,950-7,949	145	15.4	12,444	17.6	12	24
7,450-9,949	57	6	8,182	11.5	7	14
9,950-14,949	47	5	9,533	13.5	4	8
14,950-24,949	22	2.3	6,574	9.3	4	8
24,950 and over	3	.3	2,272	3.2	1	2
VALUE OF LIVESTOCK	3,051,800		451,[illegible]54,100		200,036	
All Farms Reporting	869		63,671		50	
0					4	8
Under $450	98	11.3	4,164	6.5	2	4
450-949	85	9.8	3,605	5.7	8	16
950-1,949	160	18.4	6,953	10.9	5	10
1,950-2,949	123	14.2	7,179	11.3	3	6
2,950-3,949	114	13.1	6,722	10.6	9	18
3,950-4,949	83	9.6	6,147	9.7	5	10
4,950-7,449	116	13.5	10,957	17.2	7	14
7,450-9,949	49	5.6	6,238	9.8	---	---
9,950-14,949	31	3.6	5,825	9.1	5	10
14,950-24,949	9	1	3,622	5.7	2	4
24,950 and over	1	.1	2,259	3.5	---	---

SOURCE: 1/ Census of Canada 1961 Bulletin 5.3-3

2/ Farm Survey, Farm Economic Branch, 1965

TABLE [illegible]

CAPITAL VALUES

ALBERTA AND CENSUS DIVISION #14

	1951		1961		1965
	C.D. # 14	Alberta	C.D. #14	Alberta	C.D. #14 Sample
Number of Farms	1,309	84,315	973	73,212	50
Total Area (ac.)	401,180	44,459,632	359,975	47,228,653	[illegible]
Av. Acres per farm	306	527	370	645	[illegible]
Total Improved Area (ac.)	110,785	22,271,044	132,916	25,288,527	7,761
Total Capital Value ($)	11,440,894	1,789,616,297	16,258,600	2,717,496,800	[illegible]
Average Capital Value Per Farm ($)	8,740	21,225	16,710	37,118	[illegible]
Average Capital Value Per Acre ($)	28.52	40.25	45.16	57.55	[illegible]
Value of Land & Bldgs. ($)	5,493,942	1,015,289,268	9,372,600	1,715,367,200	[illegible]
Value of Land & Bldgs. Per Farm	4,197	12,041	9,633	23,430	16,754
Value of Land & Bldgs. Per Acre ($)	13.69	22.84	26.04	36.32	43.05
Value of Machinery and Equipment	3,219,295	390,003,340	3,834,200	550,875,500	308,800
Value of Machinery and Equipment Per Farm	2,459	4,625	3,941	7,524	6,176
Value of Machinery Per Improved Acre ($)	31.93	17.51	28.85	21.78	39.79
Value of Livestock & Poultry ($)	2,727,657	384,323,689	3,051,800	451,254,100	200,050
Value of Livestock & Poultry Per Farm	2,084	4,559	3,134	6,164	4,001
Value of Livestock & Poultry Per Acre ($)	6.79	8.64	8.48	9.55	11.43

TABLE E 4

FARM ADJUSTMENTS, for 1956 and 1961

PROVINCE OF ALBERTA

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.	79,424	-	73,212	-	- 7.8
Total Area Farmed	Ac.	45,970,395	-	47,228,653	-	+ 2.7
Average Area Per Farm	"	579	-	645	-	+ 11.3
Improved Land	Ac.	23,746,113	51.6	25,288,527	53.5	+ 6.5
Crops	"	14,850,171	62.5	15,614,839	61.7	+ 5.1
Pasture	"	1,279,894	5.4	1,670,391	6.6	+ 30.5
Summerfallow	"	7,091,264	25.9	7,449,758	29.4	+ 5.0
Other Improved Land	"	524,784	2.2	553,539	2.3	+ 5.5
Size of Farms:						
Under 70 acres	No.	3,035	3.8	2,734	3.7	- 9.9
70 - 239 "	"	19,559	24.6	15,408	21.0	- 21.2
240-399 "	"	22,438	28.2	19,385	26.5	- 13.6
400-559 "	"	12,069	15.2	11,763	16.1	- 2.5
560-759 "	"	8,228	10.4	8,421	11.6	+ 2.3
760-1,119 "	"	6,877	8.7	7,498	10.2	+ 9.0
1,120-1,599 Acres	"	3,551	4.5	3,969	5.4	+ 11.8
1,600-2,239 "	"	1,670	2.1	1,842	2.5	+ 10.3
2,240 Acres and Over	"	1,997	2.5	2,192	3.0	+ 9.8
Tractors	No.	94,156	-	102,624	-	+ 9.0
Combines	"	33,531	-	38,530	-	+ 14.9
Farms Reporting Electric Power	"	40,937	51.5	52,936	72.3	+ 29.3
Total Cattle	No.	2,449,221	-	2,879,399	-	+ 17.6
Milk Cows[1]	"	282,200	-	287,932	-	+ 2.0
Pigs	"	1,211,508	-	1,469,969	-	+ 21.3
Sheep	"	404,820	-	469,882	-	+ 22.7
Hens and Pullets[2]	"	2,642,494	-	2,430,128	-	- 8.4
Total Hens and Chickens	"	9,443,521	-	9,204,677	-	- 2.5

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[1] Cows and heifers, 2 years and over, milking and to be milked.

[2] 6 months old and over.

SOURCE: Census of Canada, 1956, 1961 Bulletin 5.3-3

TABLE E 5

FARM ADJUSTMENT 1956 and 1961

CENSUS DIVISION #14

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.	1,113	-	973	-	- 12.6
Total Area Farmed	Ac.	372,293	-	359,975	-	- 3.3
Average Area Per Farm	"	334	-	370	-	+ 10.8
Improved Land	Ac.	115,527	31.0	132,916	36.9	+ 15.0
Crops	"	76,992	66.6	90,447	68.0	+ 17.5
Pasture	"	11,684	10.1	16,826	12.7	+ 44.0
Summerfallow	"	20,687	17.9	18,569	14.0	- 10.2
Other Improved Land	"	6,164	5.4	7,074	5.3	+ 14.8
Size of Farms:						
Under 70 acres	No.	25	2.2	17	1.7	- 32.0
70 - 239 "	"	458	41.2	337	34.7	- 26.4
240 - 399 "	"	363	32.6	331	34.1	- 8.8
400 - 559 "	"	147	13.2	145	14.9	- 1.4
560 - 759 "	"	66	5.9	75	7.7	+ 13.6
760 - 1,119 Acres	"	38	3.4	49	5.0	+ 28.9
1,120 - 1,599 Acres	"	9	0.8	13	1.3	+ 44.4
1,600 - 2,239 "	"	3	0.3	2	0.2	- 33.3
2,240 Acres and Over	"	4	0.4	4	0.4	-
Tractor	No.	1,054	-	1,168	-	+ 10.8
Combines	"	79	-	121	-	+ 53.2
Farms Reporting Electric Power	"	169	15.2	479	49.2	+ 183.4
Total Cattle	No.	15,588	-	18,938	-	+ 21.5
Milk Cows[1]	"	3,350	-	3,478	-	+ 3.8
Pigs	"	5,765	-	11,278	-	+ 95.6
Sheep	"	4,472	-	6,417	-	+ 35.3
Hens and Pullets[2]	"	26,898	-	25,742	-	- 4.3
Total Hens and Chickens	"	72,877	-	71,430	-	- 2.0

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[1] Cows and heifers, 2 years and over, milking and to be milked.

[2] 6 months old and over

SOURCE: Census of Canada 1956 and 1961 Bulletin 5.3-3

TABLE E 6

FARM ADJUSTMENT FOR 1956 and 1961

CENSUS DIVISION #14

78 I. D.

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.	649	-	596	-	- 8.2
Total Area Farmed	Ac.	192,487	-	192,542	-	+ 0.0
Average Area Per Farm	"	297	-	323	-	+ 8.8
Improved Land	Ac.	65,480	34.0	80,767	41.9	+ 23.3
Crops	"	45,100	68.9	54,580	67.4	+ 20.8
Pasture	"	6,021	9.2	9,981	12.4	+ 65.8
Summerfallow	"	11,319	17.3	12,049	14.9	+ 6.4
Other Improved Land	"	3,040	4.6	4,257	5.3	+ 40.0
Size of Farms:						
Under 70 acres	No.	17	2.6	9	1.5	- 47.1
70 - 239 "	"	288	44.3	230	38.7	- 20.1
240 - 399 "	"	214	32.9	222	37.2	+ 3.7
400 - 559 "	"	75	11.6	75	12.6	-
560 - 759 "	"	35	5.4	36	6.0	+ 2.8
760 - 1,119 Acres	"	16	2.5	18	3.0	+ 12.5
1,120 - 1,599 Acres	"	3	0.5	3	0.5	-
1,600 - 2,239 "	"	-	-	1	0.2	-
2,240 Acres and Over	"	1	0.2	2	0.3	+ 100.0
Tractors	No.	602	-	667	-	+ 10.8
Combines	"	40	-	68	-	+ 70.0
Farms Reporting Electric Power	"	98	15.1	290	48.6	+ 195.9
Total Cattle	No.	8,206	-	10,694	-	+ 30.3
Milk Cows[1]	"	2,348	-	2,479	-	+ 5.6
Pigs	"	3,441	-	6,716	-	+ 95.2
Sheep	"	2,249	-	3,346	-	+ 48.8
Hens and Pullets[2]	"	15,937	-	14,715	-	- 7.7
Total Hens and Chickens	"	43,527	-	41,817	-	- 3.9

[1] Cows and heifers, 2 years and over, milking and to be milked

[2] 6 months old and over.

SOURCE: Census of Canada, 1956 and 1961

TABLE E 7

FARM ADJUSTMENT for 1956 and 1961

CENSUS DIVISION # 14

95 I. D.

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.	266	-	213	-	- 19.9
Total Area Farmed	Ac.	97,865	-	75,940	-	- 22.4
Average Area Per Farm	"	368	-	356	-	- 3.3
Improved Land	Ac.	23,243	23.8	22,662	29.8	- 2.5
Crops	"	15,091	64.9	16,872	74.4	+ 11.8
Pastures	"	3,429	14.8	2,417	10.7	- 29.5
Summerfallow	"	3,344	14.4	2.267	10.0	- 32.2
Other Improved Land	"	1,379	5.9	1,106	4.9	- 19.8
Size of Farms:						
Under 70 acres	No.	2	0.8	6	2.8	+ 200.0
70 - 239 "	"	110	41.3	73	34.3	- 33.6
240 - 399 "	"	87	32.7	62	29.1	- 28.7
400 - 559 "	"	44	16.5	40	18.8	- 9.1
560 - 759 "	"	13	4.9	15	7.0	+ 15.4
760 - 1,119 Acres	"	7	2.6	14	6.6	+ 100.0
1,120 - 1,599 Acres	"	1	0.4	2	0.9	+ 100.0
1,600 - 2,239 "	"	-	-	1	0.5	-
2,240 Acres and Over	"	2	0.8	-	-	-
Tractors	No.	242	_	270	-	+ 11.6
Combines	"	14	-	17	-	+ 21.4
Farms Reporting Electric Power	"	45	16.9	102	47.9	+ 126.7
Total Cattle	No.	3,879	-	4,135	-	+ 6.6
Milk Cows 1/	"	650	-	620	-	- 4.6
Pigs	"	833	-	1,585	-	+ 90.3
Sheep	"	1,479	-	2,135	-	+ 44.4
Hens and Pullets 2/	"	6,874	-	8,327	-	+ 21.1
Total Hens and Chickens	"	16,516	-	21,678	-	+ 31.2

1/ Cows and heifers, 2 years and over, milking and to be milked.

2/ 6 months old and over.

SOURCE: Census of Canada 1956 and 1961

TABLE E 8

FARM ADJUSTMENT for 1956 and 1961

CENSUS DIVISION # 14

109 I. D.

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.	198	-	162	-	- 18.2
Total Area Farmed	Ac.	81,941	-	77,297	-	- 5.7
Average Area Per Farm	"	414	-	477	-	+ 15.2
Improved Land	Ac.	26,804	32.7	29,105	37.6	+ 8.6
Crops	"	16,801	62.7	18,920	65.0	+ 12.6
Pasture	"	2,234	8.3	4,326	14.9	+ 93.6
Summerfallow	"	6,024	22.5	4,253	14.6	- 29.4
Other Improved Land	"	1,745	6.5	1,606	5.5	- 8.0
Size of Farms:						
Under 70 acres	No.	6	3.0	2	1.2	- 66.7
70 - 239 "	"	60	30.3	34	21.0	- 43.3
240 - 399 "	"	62	31.4	47	29.1	- 24.2
400 - 559 "	"	28	14.1	30	18.5	+ 7.1
560 - 759 "	"	18	9.1	24	14.8	+ 33.3
760 - 1,119 "	"	15	7.6	16	9.9	+ 6.7
1,120 - 1,599 Acres	"	5	2.5	8	4.9	+ 60.0
1,600 - 2,239 "	"	3	1.5	-	-	-
2,240 Acres and Over	"	1	0.5	1	0.6	-
Tractors	No.	210	-	227	-	+ 8.1
Combines	"	25	-	36	-	+ 44.0
Farms Reporting Electric Power	"	26	13.1	85	52.5	+ 226.9
Total Cattle	No.	3,503	-	4,020	-	+ 14.8
Milk Cows[1]	"	352	-	374	-	+ 6.2
Pigs	"	1,491	-	2,977	-	+ 99.7
Sheep	"	1,014	-	936	-	- 7.7
Hens and Pullets[2]	"	4,087	-	2,680	-	- 34.4
Total Hens and Chickens	"	12,834	-	7,902	-	- 38.4

[1] Cows and heifers, 2 years and over, milking and to be milked.

[2] 6 months old and over

SOURCE: Census of Canada, 1956 and 1961

FARM ADJUSTMENT for 1956 and 1961

CENSUS DIVISION #14

96 I. D.

		1956		1961		
		ACRES OR NUMBERS	% OF TOTAL	ACRES OR NUMBERS	% OF TOTAL	1956-61 % CHANGE
Farm Operators	No.			[illegible]	-	
Total Area Farmed	Ac.			14,19[illegible]	-	
Average Area Per Farm	"			7,098	-	
		NO				
Improved Land	Ac.			393	2.7	N I L
Crops	"			175	45.3	
Pasture	"	DATA		104	26.7	
Summerfallow	"			-	-	
Other Improved Land	"	LISTED		105	[illegible].5	
Size of Farms:		IN				
Under 70 acres	No.			-	-	
70 - 239 "	"	1956		-	-	
240 - 399 "	"			-	-	
400 - 559 "	"			-	-	
560 - 759 "	"			-	-	
760 - 1,119 "	"			1	-	
1,120 - 1,599 Acres	"			-	-	
1,600 - 2,239 "	"			-	-	
2,240 Acres and Over	"			1	-	
Tractors	No.			4	-	
Combines	"			-	-	
Farms Reporting Electric Power	"			[illegible]	-	
Total Cattle	No.			84	-	
Milk Cows[1]	"			5	-	
Pigs	"			-	-	
Sheep	"			-	-	
Hens and Pullets[2]	"			[illegible]0	-	
Total Hens and Chickens	"			33	-	

[1] Cows and heifers, 2 years and over, milking and to be milked.

[2] 6 months old and over

SOURCE: Census of Canada 1956 and 1961 Bulletin

COMMERCIAL FARMS - LIVESTOCK AND POULTRY, NUMBERS AND VALUES

ITEM	UNIT	ALBERTA	DIVISION No. 14
Number of Commercial Farms		58,698	462
Value of livestock and poultry,(1) commercial farms	$	430,358,033	2,306,274
Horses and ponies, commercial farms:			
Total number	No.	95,876	800
Commercial farms reporting	"	25,328	238
Value of horses and ponies	$	9,883,795	76,000
Cattle, commercial farms:			
Total number	No.	2,763,192	14,579
Commercial farms reporting	"	49,988	419
Cows and heifers, 2 years and over	"	1,125,372	6,466
Heifers, 1 year and under 2 years	"	324,471	1,828
Calves under 1 year	"	875,667	4,635
Steers, 1 year and over	"	384,016	1,288
Bulls, 1 year and over	"	53,666	362
Cows and heifers, 2 years and over, milking or to be milked	"	265,926	2,543
Commercial farms reporting	"	38,890	343
Heifers, 1 year and under 2 years, being raised mainly for milk production	"	63,461	642
Commercial farms reporting	"	18,103	184
Value of cattle	$	367,884,937	1,884,124
Pigs, commercial farms:			
Total number	No.	1,389,935	9,176
Commercial farms reporting	"	35,925	325
Pigs 6 months and over	"	362,581	2,485
Pigs, under 6 months	"	1,027,354	6,691
Sows, 6 months and over, kept for breeding purposes.	"	145,621	1,053
Commercial farms reporting	"	25,139	247
Value of pigs	$	34,928,823	229,014

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(1) Includes value of goats.

SOURCE: Census of Canada 1961, Agriculture, p. 5-1, 5-4. Bulletin

ITEM	UNIT	ALBERTA	DIVISION No. 14
Sheep, commercial farms:			
Total number	No.	463,676	4,659
Commercial farms reporting	"	4,285	65
Ewes, rams and wethers, 1 year and over	"	233,296	2,329
Lambs, under 1 year	"	230,380	2,330
Value of sheep	$	6,566,235	69,885
Commercial farms reporting livestock (cattle and/or pigs and/or sheep).	No.	51,641	432
Total milk production, May 1961, commercial farms.	lb.	153,220,820	1,233,380
Commercial farms reporting milk production	No.	36,134	330
Hens and chickens, commercial farms:	"		
Total number	"	8,471,872	50,634
Commercial farms reporting	"	39,425	340
Hens and pullets, 6 months and over, kept for laying	"	2,234,338	18,197
Pullets, 2 to 6 months, intended for laying.	"	1,192,131	8,277
All other chicks over 2 months not intended for laying.	"	1,106,867	4,224
Chicks, under 2 months	"	3,938,536	19,936
Pullet chicks, under 2 months, intended for laying	"	1,014,606	6,228
Value of hens and chickens	$	6,158,107	39,669

SOURCE: Census of Canada 1961, Agriculture, p. 5-1, 5-4 Bulletin

ITEM	UNIT	ALBERTA	DIVISION No. 14
Turkeys, commercial farms:			
Total number	No.	1,122,639	850
Commercial farms reporting	"	11,356	62
Value of turkeys	$	4,428,325	3,343
Ducks, commercial farms:			
Total number	No.	88,699	291
Commercial farms reporting	"	4,069	42
Value of ducks	$	139,026	466
Geese, commercial farms:			
Total number	No.	82,699	573
Commercial farms reporting	"	5,403	61
Value of geese	$	234,460	1,478

SOURCE: Census of Canada 1961, Agriculture, p. 5-1, 5-4 Bulletin

Table E 11

CAPITAL VALUES

ALBERTA AND CENSUS DIVISION 14

	1951		1961		1965
	C. D. 14	Alberta	C. D. 14	Alberta	Sample C. D. 14
Number of Farms	1,309	84,315	973	73,212	50
Total Area (acres)	401,180	44,459,632	359,975	47,228,653	17,433
Total Improved Area (ac.)	110,785	22,271,044	132,916	25,288,527	7,761
Total Capital Value ($)	11,440,894.00	1,789,616,297.00	16,258,699.00	2,717,496,800.00	1,346,521.00
Average Capital Value Per Farm ($)	8,740.10	21,225.40	16,710.00	37,118.00	26,930.00
Average Capital Value Per Acre ($)	28.52	40.25	45.16	57.55	77.24
Value of Land & Bldgs. ($)	5,493,942.00	1,015,289,268.00	9,372,600.00	1,715,367,200.00	837,685.00
Value of Land & Bldgs. Per Acre ($)	13.69	22.84	26.04	36.32	48.05
Value of Machinery and Equipment ($)	3,218,305.00	390,003,340.00	3,834,200.00	550,875,500.00	308,800.00
Value of Machinery Per Improved Acre ($)	31.93	17.51	28.85	21.78	39.79
Value of Livestock & Poultry ($)	2,727,657.00	384,323,689.00	3,051,800.00	451,254,100.00	200,036.00
Value of Livestock & Poultry Per Acre ($)	6.79	8.64	8.48	9.55	11.48

Table F1

Income by Family and Non-Family Persons for Alberta Census Divisions, 1961.

Census Division	Number of Families	Average Income Per Family	No. Persons Not in Families	Average Income For Persons N.I.F.
1	7,750	4,740	2,548	2,061
2	14,159	5,173	4,893	2,198
3	3,978	4,729	1,599	1,820
4	1,676	4,739	854	1,923
5	4,896	4,213	2,024	2,116
6	70,876	6,255	29,783	2,539
7	4,950	4,447	2,058	1,783
8	10,708	5,429	3,956	2,130
9	4,178	4,940	1,992	2,434
10	7,703	4,503	3,266	1,745
11	86,729	5,902	32,983	2,355
12	5,655	3,752	2,111	1,442
13	4,068	4,186	1,762	1,762
14	[illegible]	5,105	1,471	2,164
15	9,046	4,361	3,951	1,926
Alberta	[illegible]	5,602		

Source (1) Census of Canada Bulletin 4.1-3, Table C3.

Table F2 INCOME OF NON-FARM FAMILIES BY INCOME GROUP

	Alberta			Census Division #14		
	Number	Percent		Number	Percent	
Under 1,000	10,963	4.6)		176	5.4)	
1,000 - 1,999	16,986	7.1)	20.7	293	9.1)	25.0
2,000 - 2,999	21,611	9.0)		339	10.5)	
3,000 - 3,999	35,105	14.7		586	18.1	
4,000 - 4,999	40,019	16.7		444	13.7	
5,000 - 5,999	34,753	14.5		494	15.3	
6,000 - 6,999	25,606	10.7)		332	10.0)	
7,000 - 7,999	17,185	7.2)	2.54	231	6.5)	21.8
8,000 - 9,999	17,943	7.5)		173	5.3)	
10,000 -14,999	13,355	5.5		134	4.1	
15,000 +	6,081	2.5		63	2.0	

Ibid. Source: Census of Canada Bulletin (1961) 4.1-3, Table C3.

Table F3 INCOME OF PERSONS NOT IN FAMILIES

	Alberta		Census Division #14	
	Number	Percent	Number	Percent
Without Income	4,738	5.0	54	3.7
Under 1,000	27,137	28.5	442	30.0
1,000 - 1,499	10,010	10.5	217	14.8
1,500 - 1,999	7,791	8.2	125	8.5
2,000 - 2,499	8,860	9.3	93	6.3
2,500 - 2,999	7,179	7.5	84	5.7
3,000 - 3,999	15,887	16.7	228	15.5
4,000 - 4,999	6,666	7.0	131	8.9
5,000 - 5,999	3,020	3.2	40	2.7
6,000 - 7,999	2,408	2.5	28	1.9
8,000 - 9,999	829	0.8	18	1.2
10,000 +	807	0.8	11	0.8

Table F4 INCOME OF HEADS OF FAMILIES BY INCOME GROUPS

	Alberta		Census Division #14	
	Number	Percent	Number	Percent
Under 2,000	19,844	11.2	352	14.2
2,000 - 2,999	22,004	12.5	340	13.7
3,000 - 3,999	42,696	24.2	513	20.6
4,000 - 4,999	39,517	22.4	496	20.0
5,000 - 5,999	22,306	12.6	353	14.2
6,000 - 6,999	12,782	7.2	246	9.9
7,000 - 9,999	12,502	7.1	156	6.3
10,000 +	4,965	2.8	28	1.1

Tables F3 and F4 indicate that the incomes of persons not in families and of family heads follow the same general trends as the incomes of non-farm families.

TABLE F5

VALUE OF PRODUCTS SOLD

BY NUMBER OF FARM OPERATORS, 1960[1/]

PRODUCTS SOLD	ALBERTA	PER CENT	C.D. 14	PER CENT
$25,000 +	1,979	2.7	3	0.3
15,000-24,999	3,155	4.3	2	0.2
10,000-14,999	5,076	6.9	7	0.7
5,000-9,999	15,976	21.8	62	6.4
3,750-4,999	8,207	11.2	59	6.1
2,500-3,749	10,810	14.8	97	10.0
1,200-2,499	13,495	18.5	232	23.8
50-1,199	9,740	13.3	312	32.1
Under 250	4,612	6.3	199	20.4
Institutional	162	0.2	-	-
Total	[illegible]	100.0	973	100.0

[1/] June 1, 1960 to May 31, 1961

Source: Census of Canada Bulletin 5.3-3

TABLE F6

VALUE AND PERCENTAGE OF AGRICULTURE PRODUCTS SOLD, 1960[1]

PRODUCTS	ALBERTA	PRODUCT AS % OF ALBERTA	C.D. 14	PRODUCT AS % OF C.D. 14
Field Crops:				
Wheat	$ 99,909,010	22.8	$99,910	5.5
Others	39,061,450	8.9	145,990	8.0
Oilseeds	14,540,820	3.3	1,350	0.1
Hay-Fodder	4,946,160	1.1	81,400	4.4
Root Crops	8,465,860	1.9	88,780	4.9
Other	10,514,310	2.4	46,470	2.5
Other Crops:				
Vegetables	743,780	0.2	1,260	0.1
Tree Fruits	1,420	-	-	-
Small Fruits	19,350	-	-	-
Greenhouse-Nursery	2,408,660	0.5	-	-
Livestock and Poultry:				
Cattle	158,015,010	36.0	509,880	27.9
Pigs	48,951,870	11.2	370,200	20.3
Sheep	3,486,240	0.8	32,020	1.8
Horses	1,386,970	0.3	68,850	3.8
Hens & Chickens	4,027,410	0.9	6,160	0.3
Turkeys	3,512,330	0.8	2,920	0.1
Other Poultry	297,340	0.1	490	-
Other Products:				
Dairy Produce	29,788,310	6.8	232,050	12.7
Eggs	5,650,520	1.3	51,110	2.8
Wool	721,410	0.2	6,530	0.4
Honey-Beeswax	447,480	0.1	150	-
Fur	1,878,840	0.4	16,140	0.9
Maple Products	-	-	-	-
Forest Products	224,370	-	62,510	3.4
Other Agricultural Products	74,140	-	1,700	0.1
TOTALS	$439,073,060	100.0	$1,825,870	100.0

[1] June 1, 1960 to May 31, 1961

SOURCE: Census of Canada Bulletin 5.3-3

TABLE F7

VALUE OF AGRICULTURE PRODUCTS SOLD, 1960. 1/

	ALBERTA	CENSUS DIVISION #14	COMMERCIAL FARMERS, C.D. #14.	% C.D. OF ALBERTA
Field Crops:				
Wheat	99,909,010	99,910	77,020	0.1
Others	39,061,450	145,990	118,280	0.37
Oilseeds	14,540,820	1,350	-	0.009
Hay - Fodder	4,946,160	81,400	64,440	1.65
Root Crops	8,465,860	88,780	87,490	1.05
Other	10,514,310	46,470	36,580	0.44
Other Crops:				
Vegetables	743,780	1,260	640	0.17
Tree Fruits	1,420	-	-	-
Small Fruits	19,350	-	-	-
Greenhouse - Nursery	2,408,660	-	-	-
Livestock & Poultry:				
Cattle	158,015,010	509,880	440,220	.32
Pigs	48,951,870	370,200	335,580	.76
Sheep	3,486,240	32,020	27,860	.92
Horses	1,386,970	68,850	67,470	4.96
Hens - Chickens	4,027,410	6,160	5,550	.15
Turkeys	3,512,330	2,920	2,220	.08
Other Poultry	297,340	490	410	.16
Other Products:				
Dairy Produce	24,788,310	232,050	212,850	.08
Eggs	5,650,520	51,110	43,510	.90
Wool	721,410	6,530	5,520	.91
Honey - Beeswax	447,480	150	-	.03
Fur	1,878,840	16,140	16,100	.86
Maple Products	-	-	-	-
Forest Products	224,370	62,510	52,180	27.86
Other Ag. Products	74,140	1,700	1,540	2.29
TOTALS	439,073,060	1,825,870	1,595,460	.42

1/ June 1, 1960 to May 31, 1961

Source: Census of Canada Bulletin 5.3-3, Table 20.

TABLE F8

KIND OF PART TIME WORK (1) OF OPERATORS (2) REPORTING OFF FARM EMPLOYMENT (3) 1960 (4)

AGRICULTURAL WORK	C. D. #14, 1961		Alberta, 1961		Sample, 1964	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Off Holding (5)	30	6.0	2,918	14.3	0	0.0
Working in Woods	124	24.6	1,640	8.0	13	41.9
Fisherman or Trapper	10	2.0	224	1.1	0	0.0
Construction Worker	116	23.0	3,855	18.9	15	16.1
Truck or Bus Driver	43	8.5	2,490	12.2	2	6.5
Factory Production Worker	1	..	509	2.5	0	0.0
Clerical Work	2	.4	502	2.5	0	0.0
Other	166	32.9	7,553	37.0	11	35.5
Not Stated	12	2.4	717	3.5	0	0.0
TOTAL	504		20,435		41	

Source: Cenus of Canada Agriculture Alberta Catalogue 95-539

Bulletin 53-3 Total 23 (23-3)

---

1. Includes agricultural work off the operator's farm.
2. Operator - the person directly responsible for the agricultural operations of the farm, whether as owner, tenant or hired manager.
3. An operator may report more than one kind of work.
4. June 1, 1960 to May 31, 1961.
5. Includes custom work.

TABLE F9

VALUE OF AGRICULTURAL PRODUCTS SOLD IN ALBERTA 1960

COMMODITY	VALUE OF PRODUCTS SOLD	NO. OF FARMS REPORTING	AVERAGE SALE PER FARM REPORTING	AVERAGE PER FARM	AVERAGE SALE PER COMMERCIAL FARM
Field Crops:					
Wheat	99,909,010	44,059	2,267.62	1,364.65	[illegible]
[illegible]	39,061,450	34,024	971.71	451.59	[illegible]
Oil Seeds	14,540,820	8,480	1,741.72	198.61	[illegible]
[illegible]	4,946,160	7,501	659.40	67.56	[illegible]
Root Crops	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Receipts	10,514,310	35,174	298.92	143.62	[illegible]
Other Crops:					
Vegetables	[illegible]	[illegible]	[illegible]	101.59	[illegible]
Livestock & Poultry:					
Cattle	[illegible]	[illegible]	[illegible]	[illegible]	2,692.00
Pigs	48,951,870	36,987	1,323.49	668.63	833.96
Sheep	3,486,240	3,177	1,097.34	47.62	59.37
Horses	1,386,970	4,277	324.28	18.94	23.63
Hens & Chickens	4,027,410	5,930	679.16	55.01	68.61
Turkeys	3,512,330	2,910	1,206.99	47.97	[illegible]
Other Poultry	297,340	893	332.97	40.61	5.07
Other Products:					
Dairy Products	29,788,310	[illegible]	[illegible]	406.88	507.48
E Eggs	5,650,520	13,747	411.04	77.18	[illegible]
Wool	721,410	2,300	313.65	313.65	[illegible]
Honey, Bees Wax	447,480	300	1,491.60	9.85	[illegible]
Fur Animals	1,878,840	290	6,478.76	[illegible]	[illegible]
Forest Products	224,370	430	521.80	3.06	[illegible]
Other Products	74,140	[illegible]	[illegible]	1.00	[illegible]
	416,643,630			5,690.92	

TABLE F10

VALUE OF AGRICULTURAL PRODUCTS SOLD (CONT'D) CENSUS DIVISION #14

COMMODITY	VALUE OF PRODUCT SOLD	NO. OF FARMS REPORTING	AVERAGE SALE PER FARM REPORTING	AVERAGE PER FARM	AVERAGE SALE PER COMMERCIAL FARM	% OF SALES OF COMMERCIAL FARMS
Field Crops:						
Wheat	99,910	223	448.02	106.68	216.26	77.10
Cash Grains	145,990	301	485.02	150.04	315.09	81.02
Oil Seeds	1,350	4	337.50	1.39	2.92	0.0
Hay Fodder	81,400	168	484.50	83.66	17[illegible].19	79.17
Root Crops	88,780	55	1,614.18	91.24	192.16	98.55
Other Receipts	46,470	281	165.37	47.76	100.58	78.72
Other Crops:						
Vegetables	1,260	8	157.50	1.30	[illegible]	50.79
Livestock & Poultry:						
Cattle	509,880	603	845.47	[illegible]	1,103.64	[illegible]
Pigs	370,200	432	856.94	390.37	801.[illegible]	[illegible]
Sheep	32,020	32	390.49	32.91	69.31	87.01
Horses	68,850	51	1,350.00	70.16	1,490.26	97.69
Hens & Chickens	6,160	49	125.71	6.55	13.33	90.10
Turkeys	2,920	19	153.68	3.00	[illegible]	78.03
Other Poultry	490	10	49.00	.50	1.[illegible]	[illegible]
Other Products:						
Dairy Products	232,050	356	651.83	238.49	50[illegible]	91.73
Eggs	51,100	151	338.41	52.5[illegible]	110.61	85.15
Wool	6,530	62	10.58	6.71	14.13	84.53
Honey, Bees Wax	150	4	37.50	.15	.32	0.0
Fur Animals	16,140	5	3,328.00	16.59	34.94	99.75
Forest Products	62,510	82	762.32	64.44	135.30	83.48
Other Products	1,700	7	242.86	1.75	3.68	90.49
	1,825,851			1,876.[illegible]		

Table F-11

WAGE EARNERS 15 YEARS AND OVER SHOWING WEEKS OF EMPLOYMENT NUMBER OF WAGE EARNERS BY AMOUNT OF EARNINGS AND AVERAGE EARNINGS 1961

Weeks of Employment	Edson		Hinton		Whitecourt	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
1 - 13	75	7.7	98	8.8	23	6.9
14 - 26	69	7.1	55	5.0	35	10.4
27 - 39	99	10.1	76	6.8	53	15.8
40 - 52	742	75.1	881	79.4	224	66.9
TOTAL	985	100.0	1,110	100.0	335	100.0
Earnings:						
Under 1,000	149	15.0	150	13.0	57	16.5
1,000 - 1,999	137	13.8	128	11.1	66	19.2
2,000 - 2,999	162	16.3	128	11.1	65	18.9
3,000 - 3,999	224	22.5	161	13.9	86	25.0
4,000 - 5,999	231	23.2	401	34.8	57	16.6
6,000 +	91	9.2	186	16.1	13	3.8

Source: Census of Canada Bulletin (1961), 3.3-2, Table 13.

Table F-12

PERCENTAGE OF FARMERS BY TOTAL INCOME GROUPS 1961 and 1964

	Average Total Income	Number of Operators	0 999	1,000 1,999	2,000 2,999	3,000 3,999	4,000 4,999	5,000 6,999	7,000 9,999	10,000 +
I.D. #78	2,466	596	26.9	23.1	19.0	13.8	8.9	6.1	1.5	.7
I.D. #95	3,034	213	18.7	22.1	19.7	16.9	10.8	5.2	4.7	1.9
I.D. #109	3,108	162	21.6	16.7	22.2	16.1	9.9	8.6	1.2	3.7
C.D. #14	2,698	971	24.2	21.8	19.8	14.8	9.5	6.3	2.2	1.4
1964 Sample	4,629	50	4	14	18	16	16	18	10	4

Source: Special ARDA Tabulation and Farm Survey.

G-1

COMMERCIAL "FOR HIRE" MOTOR TRUCKS

CENSUS DIVISION NO. 14

Number and Types of Motor Trucks Operating.	Coalbranch	Edson	Evansburg	Hinton	Peers	Whitecourt	Wildwood
Firms Operating	1	7	3	15	2	18	3
Type:							
Truck Tractors	5	6	2	9	1	9	2
Straight Trucks		5		36		30	
Vans	5	5	3	5	1	4	3
Tanks (1)							
Others	2	3		17		6	
Total Power Units	12 (1)	19	5	67	2	49	5
Semi Trailers & Trailers:							
Vans	6	3	2	6	1	3	2
Tanks (1)							
Others		10		5		9	
Total Trailers	6 (1)	13	2	11	1	12	2
Size of Firms:							
10 and over		2 (2)	1 (2)	7 (2)	1 (2)	4 (2)	1 (2)
5 - 10				1			
2 - 4	1	3	1	2		1	1
1		2	1	6	1	13	1
Total Firms	1	7	3	16	2	18	3

Note (1) Tankers available from Oil Companies
Note (2) C.N. Express-Freight has equipment as required

Source: Alberta Freight Bureau

Table G-2

COMMODITY MOVEMENT - CENSUS DIVISION NO. 14

INBOUND MOVEMENTS:

Commodity	HOW CARRIED		
	Commercial Trucks	Rail	Privately Owned Vehicles
Automobiles	*		
Chemicals	*	*	
Dairy Products	*		*
Dry Goods	*	*	
Fruit	*	*	
Furniture	*	*	
Groceries	*		*
Hardware and Appliances	*	*	
Lumber and Building Materials	*	*	
Machinery	*	*	
Paper and Paper Products	*	*	
Petroleum Products	*	*	*

OUTBOUND MOVEMENTS:

Commodity	HOW CARRIED		
	Commercial Trucks	Rail	Privately Owned Vehicles
Chemicals		*	
Coal		*	*
Dairy Products	*		*
Grain		*	
Limestone		*	
Livestock	*		*
Lumber	*	*	
Peat Moss	*	*	
Petroleum Products		Pipeline	
Talloil		*	
Woodpulp, Sulphur		*	

Source: Alberta Freight Bureau

Table G-3

REPRESENTATIVE COMMERCIAL TRUCK RATES CENSUS DIVISION NO. 14

TRUCK: Between Edmonton and	Present Class Rates In Dollars Per 100 lbs.				
	Class 100	85	70	55	45
Coal Branch:					
Cadomin	195	164	129	98	88
Robb	181	154	125	92	82
Edson	78	78	66	66	76
Evansburg	78	78	66	61	56
Hinton	186	157	125	92	88
Peers	78	78	66	62	70
Whitecourt	133	110	85	66	70
Wildwood	78	78	66	61	59

Note: (3) Alberta Motor Transport Association Shippers' Guide 1964 (18th) Edition.

Source: Alberta Freight Bureau

Table H - 1

COMMERCIAL PRODUCTION OF FISH (1958 - 1963)

YEAR	PROVINCE (lbs)	C. D. 14 (lb)	PERCENTAGE OF PROVINCE
1958	12,151,650	37,488	.308
1959	12,455,335	59,597	.478
1960	16,719,900	76,329	.456
1961	9,263,496	20,134	.217
1962	9,039,623	26,027	.288
1963	8,900,012	38,946	.437

Source: Fish and Wildlife Files and Annual Reports.

Table H - 2

REVENUE FROM COMMERCIAL FISHING

YEAR	LICENCES	VALUE TO FISHERMEN	MARKET VALUE	REVENUE FROM LICENCES	TOTAL MARKET VALUE & LICENCES
1958	58	$4,044.10	$4,541.34	$290.00	$4,831.34
1959	59	4,615.67	5,067.64	295.00	5,362.64
1960	80	5,598.48	9,456.93	400.00	9,856.93
1961	61	1,797.92	3,363.39	305.00	3,668.39
1962	60	1,284.70	3,201.46	300.00	3,501.46
1963	103	1,647.10	1,981.18	515.00	2,496.18

Source: Fish and Wildlife Annual Reports

Table H - 3

COMMERCIAL PRODUCTION OF FISH IN POUNDS PER LAKE (1958 - 1963)

YEAR	CHIP LAKE EVANSBURG	FICKLE LAKE EDSON	LONG LAKE EDSON	McLEOD LAKE WHITECOURT	SHINING BANK EDSON
1958	20,655	3,347	3,106	1,844	8,536
1959	42,487	3,139	5,137	3,670	5,164
1960	56,590	5,168	5,642	589	8,340
1961	10,800	3,944	3,035	1,154	1,201
1962	17,885	2,526	4,446	1,170	-
1963	28,076	9,040	-	-	1,830
TOTAL	176,493	27,164	21,366	8,427	25,071

Source: Fish and Wildlife Annual Reports.

TABLE I - 1

POPULATION FIVE YEARS OF AGE AND OVER, ATTENDING AND NOT ATTENDING SCHOOL BY HIGHEST GRADE ATTENDED AND SEX - FOR ALBERTA 1961.

	TOTAL		MALE	FEMALE		
	Number	% of Pop.over 5 yrs.	Number	Number	% of those attending and not	Cumulative %
TOTAL	1,331,944		689,383	642,561		
Population 5 yrs & Over	1,152,056	100.00	597,133	554,923		
Attendance School						
TOTAL	319,150	27.70	166,155	152,995	100.00	
Kindergarten	7,050		3,661	3,389	2.21	
Elementary 1-4	126,784		66,055	60,729	39.72	
5+	107,086		55,166	51,920	33.55	
Secondary 1-2	38,577		19,260	19,317	12.09	
3-4	26,194		13,660	12,534	8.21	
5	4,437		[illegible]	2,125	1.39	
University 1-2	5,307		3,205	2,102	1.66	
3+ 4+	1,851		1,409	442	0.58	
Degree	1,864		1,427	437	0.59	
Not Attending School						
TOTAL	832,906	72.30	430,978	401,928	100.00	
No Schooling	58,434		29,511	28,923	7.0[illegible]	7.02
Kindergarten	1,001		532	469	0.12	7.14
Elementary 1-4	44,866		26,168	18,698	5.39	12.53
5+	253,959		146,424	107,535	30.49	43.02
Secondary 1-2	190,916		97,497	93,419	22.[illegible]	65.94
3-4	184,302		81,301	103,001	22.13	88.07
5	43,479		18,594	24,885	5.22	93.29
University 1-2	25,220)		10,062	15,158	3.03	96.32
3+ 4+	6,662)	(1)	[illegible]	2,879	0.80	97.12
Degree	24,067)		17,106	6,961	2.90	100.02

(1) 4.2% of Total Population

SOURCE: 1961 Census Of Canada Bulletin 1/2-10

TABLE I - [illegible]

POPULATION 5 YEARS OF AGE AND OVER, ATTENDING AND NOT ATTENDING SCHOOL BY HIGHEST GRADE ATTENDED AND SEX - FOR CENSUS DIVISION #14, 1961.

	TOTAL		MALE	FEMALE		
	Number	% of Pop. over 5 yrs.	Number	Number	% of those attending & not attending	Cumulative %
TOTAL	19,282		10,683	8,599		
Population 5 yrs. & over	16,3[illegible]		[illegible],1[illegible]	[illegible],1[illegible]		
Attendance School						
TOTAL	4,372	26.78	2,253	2,119	100.00	
Kindergarten	39		17	22	6.89	
Elementary 1-4	1,[illegible]		[illegible]	[illegible]	[illegible]	
5+	1,[illegible]		[illegible]	[illegible]	[illegible]	
Secondary 1-2	501		254	247	11.45	
3-4	263		136	127	6.02	
5	25		13	12	0.57	
University 1-2	55		36	19	1.26	
[illegible]	17		13	4	0.39	
Degree	10		10	--	0.[illegible]	
Not Attending School						
TOTAL	11,952	73.22	6,882	5,070	100.00	
No Schooling	1,060		553	507	8.88	8.88
Kindergarten	7		6	1	0.06	8.94
Elementary 1-4	730		484	246	6.12	15.0[illegible]
5+	4,442		2,833	1,609	37.16	[illegible]
[illegible] 1-	[illegible]		[illegible]	1,[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
5	381		193	188	3.19	95.3[illegible]
University 1-2	265)		96	169	2.18	98.00
4+	67)	(1)	35	32	0.56	98.5[illegible]
Degree	171)		123	48	1.44	[illegible]

(1) 2.6 % of Total Population

[illegible] Canada Bulletin 1.2-10

TABLE I - 3

EXPENDITURES ON EDUCATION

	1957	[illegible]	[illegible]	1960	[illegible]	[illegible]	1963
Improvement District #78	[illegible]	53,797.15	[illegible]	[illegible]	[illegible]	[illegible]	238,540.14
Improvement District #79	60,719.70	54,909.46	[illegible]	[illegible]	[illegible]	[illegible]	15,837.93
Improvement District #95	37,225.98	36,423.49	[illegible]	48,853.52	[illegible]	107,075.87	120,883.83
Improvement District #96	909.48	782.67	[illegible]	[illegible]	[illegible]	[illegible]	3,087.07
Improvement District #10[illegible]	23,997.43	29,296.98	[illegible]	30,386.86	59,582.45	88,145.93	145,350.10
Town of Edson	64,848.30	70,638.75	[illegible]	129,986.84	86,709.42	[illegible]	[illegible]
Town of Hinton	17,442.48	279,080.91	[illegible]	493,529.40	[illegible]	[illegible]	312,632.06
Town of Whitecourt	----	----	[illegible]	[illegible]	[illegible]	[illegible]	49,343.91
Town of Evansburg	[illegible]	7,480.62	[illegible]	[illegible]	[illegible]	11,328.87	13,313.49
Town of Wildwood	[illegible]	8,971.02	[illegible]	[illegible]	[illegible]	11,032.40	12,789.66
TOTAL	[illegible]	531,381.05	[illegible]	805,481.10	[illegible]	904,250.18	1,046,726.52

SOURCE: Department of Municipal Affairs Annual Reports 1955-1964 [illegible] I - 4

PROPORTION OF TOTAL EXPENDITURES
ALLOTTED TO EDUCATION IN 1963
1961 and 1959

	1959 AMOUNT ON EDUCATION	TOTAL AMOUNT	% EDUC-ATION	1961 [illegible]	[illegible]	% [illegible]	1[illegible] AMOUNT [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Improvement District #79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Improvement District #96	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Town of Edson	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Town of Hinton	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Town of Whitecourt	[illegible]	[illegible]	[illegible]	[illegible]	75,465.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Village of Evansburg	[illegible]	[illegible]	25.72	8,543.53	38,116.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Village of Wildwood	11,237.56	40,881.68	27.49	8,956.49	40,515.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	639,251.64	1,498,051.77	42.67	734,384.24	1,859,842.06	39.49	1,046,726.52	2,372,460.87	44.1

SOURCE: Department of Municipal Affairs Annual Report

ABLE I - 5

AVERAGE COST PER STUDENT EDSON SCHOOL DIVISION AND LAC STE. ANNE SCHOOL DIVISION

1959 - 1964

	EDSON SCHOOL DIVISION			LAC ST. ANNE SCHOOL DIVISION		
	TOTAL OPERATING COST	NUMBER OF STUDENTS DEC. 31	AVERAGE COST PER STUDENT	TOTAL OPERATING COST	NUMBER OF STUDENTS DEC. 31	AVERAGE COST PER STUDENT
959	1,115,471.65	3,267	341.44	775,458.77	2,574	301.26
960	1,364,679.80	3,550	384.42	897,229.50	2,664	336.80
961	1,471,233.24	3,796	387.57	1,033,170.98	2,909	355.16
962	1,611,235.06	3,927	410.30	1,178,899.49	2,969	397.07
1963	1,680,199.18	4,061	413.74	1,261,772.17	3,087	408.74
964	1,82[illegible],1[illegible].[illegible]	4,[illegible]73	4[illegible]5.94	1,30[illegible],4[illegible]9.12	3,166	411.69

Source: School Division Annual Reports

TABLE I - 6

PERCENTAGE OF YEARLY BUDGET SPENT ON STATED CATEGORIES EDSON SCHOOL DIVISION

1959 - 1964

	1959	1960	1961	1962	1963	1964
Administration	1.9	1.8	1.7	1.8	1.8	1.7
Instruction	5[illegible].4	50.5	53.4	54.9	54.[illegible]	53.6
Instructional Aids	3.1	[illegible].8	4.5	4.1	[illegible].6	2.1
Plant Operation & Maintenance	12.2	10.3	11.5	11.8	1[illegible].[illegible]	1[illegible].[illegible]
Conveyance	13.9	1[illegible].[illegible]	1[illegible].[illegible]	12.3	12.0	12.1
Capital Expense	[illegible].4	[illegible].1	1.1	1.9	0.5	1.4
Debt Charges	12.3	13.8	1[illegible].[illegible]	1[illegible].0	14.3	15.5
Other	0.3	0.4	0.[illegible]	0.[illegible]	[illegible].[illegible]	0.4
Surplus	0.0	4.[illegible]	1.[illegible]	0.0	1.[illegible]	0.0

Source: School Division Annual Report

TABLE I - 7

EXPENDITURES ON DEBT CHARGES EDSON SCHOOL DIVISION

1959	142,501.42	1960	197,759.38	1961	203,136.17
1962	209,697.16	1963	252,222.40	1964	282,850.47

Source: School Division Annual Reports

TABLE I - 8

PERCENTAGE OF EXPENDITURE INCREASE CONTRIBUTED BY INCREASE IN DEBT CHARGES

	[illegible]	1960	1961	[illegible]	[illegible]	[illegible]
Total Budget	[illegible]	[illegible]	1,494,431.14	1,611,235.06	[illegible]	[illegible]
Increase Over Previous Yr.	- - -	314,733.69	64,226.10	116,793.96	[illegible]	[illegible]
Total Debt Charges	142,501.42	197,795.38	203,136.17	209,697.16	[illegible]	[illegible]
Increase in Debt Charges	- - -	55,293.96	5,340.79	6,560.99	[illegible]	[illegible]
Proportion of Increase Of Budget Contributed By Debt Charges	- - -	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: School Division Annual Reports

TABLE I - 9

SALARIES OF TEACHERS AND ADMINISTRATION

EDSON SCHOOL DIVISION AND LAC STE. ANNE SCHOOL DIVISION

1958 - 1964

	EDSON SCHOOL DIVISION			LAC ST. ANNE SCHOOL DIVISION		
	SALARY PER YEAR ($)					
YEAR	MINIMUM	MAXIMUM	AVERAGE	MINIMUM	MAXIMUM	AVERAGE
1958	NA	NA	NA	NA	NA	NA
1959	[illegible]	9,000	4,700	[illegible]	9,100	[illegible]
1960	[illegible]	9,050	4,800	3,000	[illegible]	[illegible]
1961	3,000	10,150	[illegible]	3,000	9,750	4,701
1962	3,000	10,150	[illegible]	3,000	[illegible]	[illegible]
1963	3,000	10,250	[illegible]	3,000	[illegible]	[illegible]
1964	3,350	10,400	5,717	3,075	10,300	[illegible]

Source: Annual Reports of School Divisions

TABLE I - 10

TRAINING OF STAFF

EDSON AND LAC STE. ANNE SCHOOL DIVISION

1959 - 1963

	EDSON SCHOOL DIVISION			LAC ST. ANNE SCHOOL DIVISION		
YEAR	TOTAL NUMBER OF TEACHERS	TOTAL NUMBER OF TEACHERS WITH DEGREES	TOTAL % OF TEACHERS WITH DEGREES	TOTAL NUMBER OF TEACHERS	TOTAL NUMBER OF TEACHERS WITH DEGREES	TOTAL % OF TEACHERS WITH DEGREES
1959	143.00	20.00	13.99	99.00	6.00	6.06
1960	151.40	20.00	13.21	102.00	9.00	8.82
1961	162.50	20.00	12.31	110.00	13.00	11.82
1962	169.20	31.00	18.32	118.00	17.00	14.41
1963	167.20	31.00	18.54	116.00	16.00	13.79
1964	179.30	43.00	23.98	120.00	19.00	15.83

Source: School Division Annual Reports

TABLE I - 11

TOTAL STUDENT POPULATION AND TOTAL

NUMBER OF TEACHERS 1958 - 1960

EDSON SCHOOL DIVISION AND LAC STE. ANNE SCHOOL DIVISION

	EDSON SCHOOL DIVISION			LAC ST. ANNE SCHOOL DIVISION		
YEAR	TOTAL NUMBER OF STUDENTS	TOTAL NUMBER OF TEACHERS	TOTAL NUMBER OF STUDENTS PER TEACHERS	TOTAL NUMBER OF STUDENTS	TOTAL NUMBER OF TEACHERS	TOTAL NUMBER OF STUDENTS PER TEACHERS
1958	3,114	121	25.7	2,453	NA	
1959	3,267	143	22.85	2,574	99	26.00
1960	3,550	151.4	23.45	2,664	102	26.12
1961	3,796	162.5	23.36	2,909	110	26.45
1962	3,927	169.2	23.21	2,969	118	25.16
1963	4,061	167.2	24.29	3,087	116	26.61
1964	4,278	179.3	23.86	3,166	120	26.38

Source: Annual Reports of School Divisions

[illegible]

AVERAGE ENROLLMENT PER CLASSROOM
EDSON SCHOOL DIVISION
[illegible]

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	N.A.	19.9	19.1	[illegible]	[illegible]	[illegible]
[illegible]						
[illegible]	[illegible]	25.8	[illegible]	[illegible]	[illegible]	[illegible]
Grades [illegible]	[illegible]	28.2	28.7	[illegible]	[illegible]	[illegible]
Grades [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

AVERAGE ENROLLMENT PER TEACHER
LAC STE. ANNE SCHOOL DIVISION
1959 - 1964

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	N.A.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	N.A.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	N.A.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]: [illegible] Division Annual Reports

TABLE I - 14

GRADE NINE EXAMINATION PERFORMANCE

EDSON SCHOOL DIVISION AND LAC STE. ANNE SCHOOL DIVISION

1958 - 1964

	EDSON			LAC ST. ANNE
YEAR	NUMBER WRITING	NUMBER PASS	PER CENT PASS	PER CENT PASS
1958			N.A.	N.A.
1959	202	165	81.68	80.0
1960	223	196	87.89	
1961	240	215	89.58	84.6
1962	279	248	88.89	84.8
1963	261	234	89.66	85.2
1964	298	270	90.60	84.2

Source: Annual Reports of School Divisions

TABLE I - 15

GRADE TWELVE EXAMINATION RESULTS

EDSON SCHOOL DIVISION AND LAC STE. ANNE SCHOOL DIVISION

1958 - 1964

	EDSON SCHOOL DIVISION			LAC ST. ANNE S.D.
YEAR	PAPERS WRITTEN	PAPERS PASSED WITH 40% OR BETTER	PER CENT PAPERS PASSED	PER CENT PAPERS PASSED
1958			N.A.	N.A.
1959	335	288	85.97	74
1960	383	315	82.25	
1961	405	320	79.01	78.2
1962	548	433	79.01	81.3
1963	515	395	76.60	82.2
1964	614	473	77.04	85.5

Source: Annual Reports of School Divisions

TABLE I - 16

CHANGE IN STUDENT POPULATION OF SPECIFIED CLASSES FROM GRADE 9 - 12
EDSON SCHOOL DIVISION

9	10			11			12			Year Cla In
NUMBER	NUMBER	NUMBER CHANGE	CHANGE %	NUMBER	NUMBER CHANGE	CHANGE %	NUMBER	NUMBER CHANGE	CHANGE %	GRADE 12
N.A.	144	N.A.	N.A.	104	-40	27.78	99	-5	4.81	1960
220	152	-68	30.90	128	-24	15.79	101	-27	21.09	1961
221	172	-49	22.17	128	-44	25.58	101	-27	21.09	1962
256	213	-43	16.80	183	-30	14.08	144	-39	21.31	1963
274	215	-59	21.53	196	-19	8.84	174	-22	11.22	1964

SOURCE: Annual Reports of School Divisions

TABLE I - 17

CHANGE IN STUDENT POPULATION
LAC STE. ANNE SCHOOL DIVISION

	9	10			11				12			
YEAR IN	NUMBER	NUMBER	NUMBER CHANGE	CHANGE %	NUMBER	NUMBER CHANGE	CHANGE %	NUMBER	NUMBER CHANGE	CHANGE %	CHANGES FROM (9-12) NUMBER	% CHANGE (9-12)
1960	213	171	-42	19.71	136	-35	20.46	99	-37	27.20	-114	53.5[illegible]
1961	195	136	-59	30.25	106	-30	22.05	96	-10	9.43	- 99	50.7[illegible]
1962	186	126	-60	32.25	111	-15	11.90	96	-15	13.51	- 90	43.[illegible]
1963	210	152	-58	27.61	128	-24	15.78	104	-24	18.75	-106	50.48
1964	[illegible]	[illegible]	-7[illegible]	31.30	152	- 6	3.79	120	-32	21.05	-110	47.83

Source: 1964 Annual Report of School Division

TABLE I - [illegible]

PROGRESS OF STUDENTS IN GRADE SEVEN

1957 - 1958

SCHOOL	NUMBER IN GRADE SEVEN	NUMBER OF M.	NUMBER OF F.	NUMBER IN GRADE NINE	PER CENT IN GRADE NINE	NUMBER IN GRADE TEN	NUMBER IN GRADE ELEVEN	NUMBER WITH DIPLOMA	NUMBER WITH MATRIC	% [illegible] DIPLOMA AND MATRIC	TRAVELLED BY BUS	% INCLUDING GRADUATES OUTSIDE OF MATRIC
Hinton	41	22	19	28	68.3	24	16	1 1*	3 1*	9.8	12	12.2
Hinton (Mill)	19	11	8	10	[illegible]	4	[illegible]	1	-	5.3	19	5.3
Spreen's Flats	1	--	1	1	100.0	--	--	-	-	0.0	--	00.0
Cadomin	5	4	1	3	60.0	3	3	1	-	20.0	--	20.0
Robb	4	2	2	4	100.1	1	1	-	1 1*	25.0	1	50.0
Mercoal	20	6	14	9	45.0	8	8	2 1*	1 1*	15.0	--	25.0
Foothills	13	6	7	2	15.4	2	2	1 1*	1 1*	15.4	--	30.8
Pembina	1	1	--	1	100.0	--	--	-	-	0.0	--	00.0
Edson	58	21	37	34	58.6	30	23	3	5 1*	13.8	27	15.5
Evansburg	36	19	17	24	66.7	20	15	4	6	27.8	21	27.8
Marlboro	8	3	5	--	00.0	--	--	-	-	0.0	--	00.0
Wildwood	24	7	17	15	[illegible]	12	8	-	3	12.5	9	12.5
Fulham	29	18	11	9	31.0	6	5	-	3	10.3	27	10.3
Peers	14	8	6	6	42.9	3	2	1	-	7.1	12	7.1
Niton	21	9	12	7	33.3	3	2	-	-	0.0	20	00.0
Whitecourt	18	8	10	12	66.7	7	7	-	2	11.1	7	11.1
Blue Ridge	4	2	2	3	75.0	1	--	-	-	0.0	--	00.0
Anselmo	3	2	1	3	110.0	3	3	-	1	33.3	1	33.3
TOTALS	319	149	170	171	53.6	127	98	14	26	12.5	156	15.0

* Moved Out of District

SOURCE: Tabulations From Department of Education

TABLE I - 19

EDSON SCHOOL DIVISION QUESTIONNAIRE 1962

CHOICE OF PROGRAM	NUMBER	PER CENT
Matric	390	48.57
General Diploma	143	17.83
Business Education	119	14.83
Technical Program	118	14.71
Vocational Agriculture	32	3.99
TOTAL	802	99.93

TABLE I - 20

SURVEY EDSON SCHOOL DIVISION 1964
RAW DATA SHEETS

CHOICE OF PROGRAM	NUMBER	PER CENT
Matric	546	53.32
General Diploma	167	16.30
Business Education	153	14.94
Technical Program	111	10.83
Vocational Agriculture	47	4.58
TOTAL	1,024	99.97

TABLE I -

CHOICE OF PROGRAM BY SCHOOL
EDSON SCHOOL DIVISION

	MATRIC		GENERAL DIPLOMA		BUSINESS EDUCATION		TECHNICAL PROGRAM		VOCATIONAL AGRICULTURAL		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%
Edson High	111	61.66	26	14.44	25	13.88	14	[illegible]	4	[illegible]	180	100
Edson Junior	[illegible]	43.80	33	[illegible]	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
Hinton	121	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	[illegible]	[illegible]	[illegible]	[illegible]	100
Niton	44	35.48	[illegible]	[illegible]	[illegible]	18.54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100
Evansburg	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23	[illegible]	[illegible]	[illegible]	[illegible]	100
Wildwood	18	50.00	[illegible]	[illegible]	[illegible]	13.88	6	[illegible]	[illegible]	[illegible]	36	100
Peers	14	56.00	1	4.00	4	16.00	0	0.00	[illegible]	[illegible]	25	100
Fulham	4	80.00	1	20.00	0	0.00	0	0.00	0	0.00	5	100
Robb	[illegible]	[illegible]	[illegible]	11.11	3	14.44	5	[illegible]	0	0.00	18	100
Jasper	83	[illegible]	[illegible]	17.88	9	7.31	8	[illegible]	1	0.81	[illegible]	100
TOTALS	546	[illegible]	167	16.30	153	14.94	111	10.83	47	[illegible]	1,024	100

SOURCE: Survey Made by Edson School Division, 1964

WOULD LIVE AWAY FROM HOME WHILE ATTENDING SCHOOL

(1962)

	YES		NO		NOT RECORDED		TOTAL	
PROGRAM	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gen. Diploma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bus. Educ.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tech. Prog.	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Voc. Agrcl.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.81	[illegible]	[illegible]

SOURCE: Survey Made by Edson School Division 1962.

TABLE I - 23

WOULD LIVE AWAY FROM HOME WHILE ATTENDING SCHOOL (1964) (Raw Tally Sheets)

	YES		NO		NOT RECORDED		TOTAL	
PROGRAM	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Matric	356	65.20	9	1.64	181	33.15	546	99.99
Gen. Diploma	141	84.43	22	13.17	4	2.39	167	99.99
Bus. Educ.	129	84.31	10	6.53	14	9.15	153	99.99
Tech. Prog.	87	78.37	12	10.81	12	10.81	111	99.99
Voc. Agrcl.	36	76.59	8	17.02	3	6.38	47	99.99
TOTAL	749	73.14	[illegible]	5.95	214	[illegible]0.39	1,0[illegible]	99.99

SOURCE: Survey Made by Edson School Division 1964.

TABLE I – [illegible]4

WILLING TO LIVE AWAY FROM HOME

(RAW TALLY SHEETS) (1964)

	YES		NO		NOT RECORDED		TOTAL
PROGRAM	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER
Edson High	110	61.11	7	3.88	[illegible]	[illegible].00	180
Edson Junior	118	70.[illegible]	[illegible]	4.1[illegible]	[illegible]	[illegible]	[illegible]
Hinton	142	73.57	16	8.[illegible]9	[illegible]5	1[illegible].1[illegible]	19[illegible]
Niton	110	88.70	3	2.41	11	8.87	1[illegible]4
Evansburg	114	75.00	15	9.8[illegible]	[illegible]	15.1[illegible]	15[illegible]
Wildwood	16	44.44	20	55.56	0	0.0	36
Peers	[illegible]	92.00	2	8.00	0	0.0	25
Fulham	3	60.00	2	40.00	0	0.0	5
Robb	17	94.44	0	0.0	1	5.5	18
Jasper	91	73.98	11	8.94	21	17.07	1[illegible]3
TOTALS	744	72.6[illegible]	83	8.10	197	19.[illegible]	1,0[illegible]4

SOURCE: Survey Made by Edson School Division 1964

Table J - 1

TOWNS AND VILLAGES IN CENSUS DIVISION 14
SUMMARY OF EXPENDITURES

	Total EXPENDITURE IN DOLLARS	Per Cent of TOTAL EXPENDITURE
General Government	96,574	7.3
Protection to Persons & Property	121,416	9.1
Public Works	151,536	11.4
Sanitation & Waste Removal	41,057	3.1
Social Welfare	17,972	1.4
Education	524,027	39.5
Recreation & Community Services	48,759	3.7
Debt Charges	90,684	6.8
Utilities & Other Municipal Enterprises	28,928	2.2
Provision for Reserves	1,265	0.1
Miscellaneous*	204,904	15.4
TOTAL	1,327,116	100.0

*Miscellaneous includes contributions to general capital and loan funds, joint or special expenditures and other miscellaneous items.

Source: Municipal Affairs Annual Reports.

Table J - 2

PAYMENTS MADE BY IMPROVEMENT DISTRICTS
C. D. 14 - 1963

	$	% of Total
School Requisitions	523,698	50.0
Roads & Bridges	360,352	34.4
Direct Assistance	12,202	1.2
Hospital Requisitions	60,253	5.8
Administration	39,624	3.8
Health Services (Net)	19,516	1.8
Light, Water & Scavenging	2,141	0.2
Pests & Weeds	1,727	0.2
Recreational Services	372	0.0
Senior Citizens Homes	6,478	0.6
Miscellaneous	21,360	2.0
TOTAL	1,047,723	100.0

Source: Municipal Affairs Annual Report

Table J - 3

TOWNS AND VILLAGES IN CENSUS DIVISION 14
STATEMENT OF EXPENDITURES - 1963

		EDSON	HINTON	WHITECOURT	EVANSBURG	WILDWOOD
General Government	$	37,561	33,085	16,634	4,382	4,912
	%	9.1	5.0	9.0	9.1	12.0
Protection to Persons & Property	$	48,651	43,329	22,014	3,815	3,607
	%	11.8	6.8	12.0	8.0	8.7
Public Works	$	65,226	54,204	18,526	7,224	6,356
	%	16.0	8.5	10.0	15.1	15.4
Sanitation & Waste Removal	$	16,449	15,546	6,957	1,963	142
	%	4.0	2.4	3.8	4.1	0.4
Health	$	66	5	-	-	-
	%	0.0	0.0	-	-	-
Social Welfare	$	6,367	5,641	942	1,747	3,275
	%	1.5	0.9	0.9	3.6	8.0
Education	$	134,948	312,632	49,344	13,313	12,790
	%	32.9	48.8	26.7	27.8	31.0
Recreation & Community Services	$	22,008	22,500	3,404	640	207
	%	5.4	3.5	1.8	1.3	0.5
Debt Charges	$	26,801	32,310	21,288	6,171	4,112
	%	6.5	5.0	11.5	12.9	10.0
Utilities & Other Municipal Enterprises	$	3,904	10,729	8,359	3,303	2,633
	%	0.9	1.7	4.5	6.9	6.4
Provision for Reserves	$	114	-	500	651	-
	%	0.0	-	0.3	1.4	-
Miscellaneous*	$	49,019	111,261	36,789	4,701	3,134
	%	11.9	17.3	19.9	9.8	7.6
TOTAL	$	411,164	641,291	184,758	47,908	41,247

* Miscellaneous includes Contributions to General Capital & Loan Funds, Joint or Special Expenditures and other miscellaneous items.

Table J - 4

STATEMENT OF PAYMENTS 1963

		IMPROVEMENT DISTRICTS				
		78	79	95	96	109
School Requisitions	$	238,540	15,837	120,884	3,087	145,350
	%	48.3	67.8	53.0	30.6	50.0
Roads and Bridges	$	186,635	962	63,251	5,343	104,161
	%	37.6	4.1	27.7	52.9	35.8
Direct Assistance	$	3,224	233	7,607	324	814
	%	0.6	1.0	3.3	3.2	0.3
Hospital Requisitions	$	28,898	1,712	13,382	350	15,911
	%	5.8	7.3	5.9	3.5	5.5
Administration	$	19,053	2,526	9,601	427	8,017
	%	3.9	10.8	4.2	4.2	2.8
Net Health Services	$	7,342	872	5,679	562	5,061
	%	1.5	3.8	2.5	5.6	1.7
Light, Water and Scavenging	$	300	437	823	-	581
	%	0.1	1.9	0.4	-	0.2
Pests and Weeds	$	365	-	679	-	683
	%	0.1	-	0.3	-	0.2
Recreational Services	$	-	-	368	-	4
	%	-	-	0.1	-	-
Senior Citizens Homes	$	2,412	152	1,182	-	2,102
	%	0.5	0.7	0.5	-	0.7
Miscellaneous	$	8,053	611	4,739	-	7,957
	%	1.6	2.6	2.1	-	2.8
TOTAL	$	493,822	23,342	288,195	10,093	290,641

Source: Municipal Affairs Annual Report

Table J - 5

STATEMENT OF PAYMENTS 1962

		IMPROVEMENT DISTRICTS				
		78	79	95	96	109
School Requisitions	$	222,181	16,721	107,076	3,547	88,146
	%	48.9	60.2	48.9	29.4	42.2
Roads and Bridges	$	163,001	3,672	63,101	5,907	94,652
	%	35.9	13.2	28.8	49.0	45.3
Direct Assistance	$	1,818	487	5,416	47	195
	%	0.4	1.7	2.5	0.4	0.1
Hospital Requisitions	$	26,751	1,812	12,324	518	10,155
	%	5.9	6.6	5.6	4.3	4.9
Administration	$	18,223	2,354	9,245	397	7,430
	%	4.0	8.5	4.2	3.3	3.6
Net Health Services	$	7,147	1,786	5,731	692	2,571
	%	1.6	6.4	2.6	5.7	1.2
Light, Water and Scavenging	$	397	221	1,097	-	504
	%	0.1	0.8	0.5	-	0.2
Pests and Weeds	$	673	-	224	-	-
	%	0.2	-	0.1	-	-
Recreational Services	$	2,134	-	7,997	835	3,938
	%	0.5	-	3.7	6.9	1.9
Senior Citizens Homes	$	3,073	213	1,437	-	-
	%	0.7	0.8	0.7	-	-
Miscellaneous	$	8,640	491	5,267	123	1,311
	%	1.9	1.8	2.4	1.0	0.6
TOTAL	$	454,038	27,757	218,906	12,066	208,902

Source: Municipal Affairs Annual Report.

Table J-6

STATEMENT OF RECEIPTS 1963

IMPROVEMENT DISTRICTS

I.D.	TAXES		PROVINCIAL GRANTS		LEASES AND PERMITS		MISCELLANEOUS		INTEREST CREDITED		TOTAL
	$	%	$	%	$	%	$	%	$	%	$
78	499,001	93.1	26,835	5.0	2,904	0.6	1,697	0.3	5,339	1.0	535,776
79	28,210	81.7	4,717	13.7	22	0.1	6	-	1,559	4.5	34,514
95	250,527	88.1	26,780	9.4	3,592	1.3	2,280	0.8	1,164	0.4	284,293
96	7,206	60.6	4,149	34.9	99	0.8	93	0.8	345	2.9	11,892
109	318,069	93.7	16,516	4.9	1,833	0.5	73	-	3,050	0.9	339,541

Table J-7

STATEMENT OF RECEIPTS 1962

IMPROVEMENT DISTRICTS

I.D.	TAXES		PROVINCIAL GRANTS		LEASES AND PERMITS		MISCELLANEOUS		INTEREST CREDITED		TOTAL
	$	%	$	%	$	%	$	%	$	%	$
78	446,633	93.1	25,344	5.3	2,234	0.5	235	0.1	5,045	1.0	479,491
79	21,988	79.2	4,287	15.5	18	0.1	-	-	1,443	5.2	27,736
95	201,434	85.5	31,919	13.5	1,630	0.69	26	0.01	609	0.3	235,618
96	3,899	53.2	2,830	38.6	84	1.1	93	1.3	427	5.8	7,333
109	200,488	90.7	15,223	6.9	1,228	0.5	692	0.3	3,516	1.6	221,147

Source: Annual Report of the Department of Municipal Affairs of the Province of Alberta, 1962. Page 270.

Table J-8

SOURCES OF REVENUE

TOWNS AND VILLAGES IN C.D. 14 - 1963

		EDSON	HINTON	WHITECOURT	EVANSBURG	WILDWOOD	TOTAL
Amalgamated tax levy	$	279,707	553,909	126,346	35,831	29,903	1,025,696
	%	67.4	85.5	66.1	70.2	66.6	75.9
Licenses & Permits	$	7,385	10,123	14,743	769	1,534	34,554
	%	1.7	1.5	7.8	1.5	3.5	2.6
Rents Concessions & Franchises	$	10,605	7,246	840	1,288	833	20,812
	%	2.6	1.1	0.4	2.5	1.8	1.5
Fines	$	3,468	861	3,196	53	81	7,659
	%	0.8	0.1	1.6	0.1	0.2	0.6
Interest, tax penalties, etc.	$	6,853	3,374	4,090	648	1,261	16,226
	%	1.7	0.5	2.2	1.2	2.8	1.2
Service Charges	$	24,714	23,827	8,139	5,892	3,674	66,246
	%	5.9	3.7	4.3	11.5	8.2	4.9
Recreation & Community Services	$	4,874	256	50	95	-	5,275
	%	1.2	0.0	0.0	0.2	-	0.4
Contributions Grants and subsidies	$	77,422	42,949	33,446	6,393	7,450	167,660
	%	18.6	6.6	17.5	12.5	16.6	12.4
Miscellaneous	$	562	6,027	290	140	165	7,184
	%	0.1	1.0	0.1	0.2	0.3	0.5
Total	$	415,590	648,572	191,140	51,109	44,901	1,351,312
	%	100.0	100.0	100.0	100.0	100.0	100.0

Table J-9

AMALGAMATES TAX LEVY

TOWNS AND VILLAGES IN C.D. 14 - 1963

		EDSON	HINTON	WHITECOURT	EVANSBURG	WILDWOOD	TOTAL
Real Property	$	249,763	528,057	100,086	27,997	24,589	930,492
	%	89.3	95.3	79.2	78.1	82.2	90.7
Business Tax	$	10,020	-	10,219	1,520	-	21,759
	%	3.5	0.0	8.1	4.2	0.0	2.1
Other	$	19,924	25,852	16,041	6,314	5,314	73,445
	%	7.2	4.7	12.7	17.7	17.8	7.2
Total	$	279,707	553,909	126,346	35,831	29,903	1,025,696
	%	100.0	100.0	100.0	100.0	100.0	100.0

Source: Municipal Affairs Annual Report 1963

Table J-10

EXPENDITURES (in dollars) FOR SOCIAL ASSISTANCE

by MUNICIPAL AUTHORITY*

1956 - 1963

	1956	1957	1958	1959	1960	1961	1962	1963
I.D. 78	6,573	6,125	4,874	3,280	1,613	2,099	1,818	3,224
I.D. 79	707	1,689	1,320	889	1,590	2,136	487	233
I.D. 95	7,841	4,847	4,915	4,613	3,608	5,346	5,415	7,606
I.D. 96	300	185	262	158	-	-	47	324
I.D. 109	4,781	1,476	1,123	636	307	326	194	813
Edson	3,966	2,314	1,769	2,086	4,339	3,738	3,506	6,367
Hinton	-	1,070	2,655	3,914	6,593	7,706	4,281	5,640
Whitecourt	-	-	-	93	253	1,527	2,668	942
Evansburg	2,047	1,984	382	56	361	1,861	2,209	1,747
Wildwood	1,339	1,348	4,463	3,008	2,547	1,392	3,712	3,275
Total	27,554	21,038	21,763	18,733	21,211	26,131	24,337	30,171

* Generally Social Assistance is Shared - 80% by the province and 20% by the Municipal Authority.

Source: Municipal Affairs Annual Reports.

Table J-11

REASON FOR SOCIAL ASSISTANCE*
BY MONTHS
EDSON WELFARE OFFICE 1964

MONTH	TOTAL CASES		UNEMPLOYED		SEPARATED		DESERTED		MEDICAL		JAIL		UNWED MOTHERS		ALCOHOLIC	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
January	53	100.0	39	73.6	-	0.0	1	1.9	12	22.6	1	1.9	-	0.0	-	0.0
February	43	100.0	36	83.7	-	0.0	-	0.0	7	16.3	-	0.0	-	0.0	-	0.0
March	40	100.0	30	75.0	-	0.0	1	2.5	9	22.5	-	0.0	-	0.0	-	0.0
April	55	100.0	38	69.1	1	1.8	1	1.8	13	23.7	1	1.8	1	1.8	-	0.0
May	54	100.0	38	70.4	2	3.7	2	3.7	12	22.2	-	0.0	-	0.0	-	0.0
June	46	100.0	24	52.2	1	2.2	2	4.3	17	37.0	-	0.0	2	4.3	-	0.0
July	36	100.0	21	58.3	4	11.1	-	0.0	9	25.0	-	0.0	2	5.6	-	0.0
August	43	100.0	32	74.4	3	7.0	-	0.0	6	14.0	-	0.0	2	4.6	-	0.0
September	41	100.0	29	70.7	2	4.9	-	0.0	7	17.1	-	0.0	2	4.9	1	2.4
October	32	100.0	20	62.5	1	3.1	-	0.0	8	25.0	-	0.0	2	6.3	1	3.1
November	32	100.0	22	68.7	-	0.0	3	9.4	4	12.5	-	0.0	2	6.3	1	3.1
December	55	100.0	45	81.8	2	3.6	1	1.9	2	3.6	1	1.9	2	3.6	2	3.6
TOTAL	530	100.0	374	70.6	16	3.0	11	2.1	106	20.0	3	0.6	15	2.8	5	0.9

* Figures shown here are total social assistance cases handled by the Edson Welfare Office for each month.

Source: Records of the Edson Office of the Department of Public Welfare.

Table J-12

SOCIAL ASSISTANCE BY MONTHS FOR EDSON WELFARE OFFICE GIVING TOTAL CASES, MARITAL STATUS, AGE AND RESIDENCES

1964

	MARITAL STATUS								AGE						RESIDENCE			
	TOTAL CASES		FAMILIES		SINGLE MEN		SINGLE WOMEN		TOTAL PERSONS		ADULTS		CHILDREN		RURAL		URBAN	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
January	53	100	41	77.4	7	13.2	5	9.4	266	100	90	33.8	176	66.2	40	75.4	13	24.6
February	43	100	32	74.4	7	16.3	4	9.3	235	100	74	31.5	161	68.5	31	72.0	12	28.0
March	40	100	31	77.5	7	17.5	2	5.0	206	100	70	34.0	136	66.0	31	77.5	9	22.5
April	55	100	45	81.8	7	12.7	3	5.5	303	100	99	32.7	204	67.3	41	74.5	14	25.6
May	54	100	46	85.2	4	7.4	4	7.4	279	100	95	34.1	184	65.9	44	81.4	10	18.6
June	46	100	29	63.0	8	17.4	9	19.6	197	100	74	37.6	123	62.4	32	69.5	14	30.5
July	36	100	27	75.0	2	5.6	7	19.4	172	100	60	34.9	112	65.1	24	66.6	12	33.4
August	43	100	37	86.0	2	4.7	4	9.3	235	100	77	32.8	158	67.2	33	76.7	10	23.3
September	41	100	34	83.0	4	9.7	3	7.3	214	100	72	33.6	142	66.4	32	78.0	9	22.0
October	32	100	27	84.3	1	3.2	4	12.5	186	100	59	31.7	127	68.3	26	81.2	6	18.8
November	32	100	29	90.6	1	3.2	2	6.2	188	100	59	31.4	129	68.6	24	75.0	8	25.0
December	55	100	50	90.9	1	1.8	4	7.3	322	100	100	31.1	222	68.9	41	74.5	14	25.5
Total	530	100	428	80.8	51	9.6	51	9.6	2,803	100	929	33.1	1,874	66.9	399	75.2	131	24.8

Source: Records of the Edson Office, Department of Public Welfare.

Table J-13

CRIME STATISTICS SUMMARY

For CENSUS DIVISION 14

1963

	CRIMINAL CODE				FEDERAL	PROVINCIAL STATUTES		
	General	B.E.T.	Thefts	Forgery Fraud	Income Tax etc.	Liquor	Traffic	General
Edson R.C.M.P.	155	37	89	30	57	193	194	42
Hinton R.C.M.P.	41	12	25	11	18	61	40	19
Evansburg R.C.M.P.	131	28	84	24	25		978	84
Whitecourt R.C.M.P.	61	7	32	8	9	78	47	11
Edson Town Police	134	24	112	63	-	166	46	474
Hinton Mun. Police	31					19	63	10
Whitecourt Town Police	103*					110	71	

* All criminal code offenses included in this figure.

Source: Records of Above Detachments and Police Departments.

Table J-14

CRIME STATISTICS SUMMARY
For CENSUS DIVISION 14
1962

	Traffic Accidents	Assistance to Other Police	Assistance to General Public	General Public Complaints
Edson R.C.M.P.	122	58	215	312
Hinton R.C.M.P.	63	36	16	63
Evansburg R.C.M.P.	114	87	-	185
Whitecourt R.C.M.P.	87	42	117	44
Edson Town Police	110	14	-	553
Hinton Mun. Police				210
Whitecourt Town Police	75			

Source: Records of above detachments and police departments.